

Legislative History for Connecticut Act

HB 6391	PA 71	2007
Senate	2439-2445	(7)
House	2106-2110	(5)
Judiciary	868, 869, 871, 879-880, 881-885, 948-949, 950-953, 984, 986-989, 1013-1014, 1036-1093, 3665-3669	(86)
		Total- 98p

Transcripts from the Joint Standing Committee Public Hearing(s) and/or Senate
and House of Representatives Proceedings

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S-544

CONNECTICUT
GEN. ASSEMBLY
SENATE

PROCEEDINGS
2007

VOL. 50
PART 8
2336-2688

002439

jmk

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Senate

May 16, 2007

Mr. Clerk.

THE CLERK:

Calendar Page 6, Calendar 497, File 157,
Substitute for House Bill 6391, An Act Concerning
Involuntary Administration of Psychiatric Medication
for Purposes of Competency to Stand Trial, Favorable
Report of the Committee on Judiciary and Public
Health.

THE CHAIR:

Senator McDonald.

SEN. MCDONALD:

Thank you, Mr. President. Mr. President, I move
acceptance of the Joint Committee's Favorable Report
and passage of the bill.

THE CHAIR:

Acting on approval, Sir, will you remark, Sir.

SEN. MCDONALD:

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I will, Mr. President. Mr. President, this bill would clarify, or I should say slightly expand, existing law.

And it deals with issues where somebody who is accused of committing a crime but is found not to be competent to stand trial, they are currently referred to DMHAS for treatment.

And, Mr. President, if they are successful restored back to competency, then they have the opportunity, I should say then they would have the obligation to be transferred back to court for the trial for which they have been accused.

And, Mr. President, the problem arises that sometimes, the medication order to restore competency doesn't transfer over and continue on while that individual is in the custody of the Department of Corrections for purposes of conducting the trial.

So, Mr. President, this bill would allow, with the court's permission, that the medication order

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would follow the individual back to the Department of Corrections until the case is disposed of.

THE CHAIR:

Thank you, Senator McDonald. Will you remark further? Senator McKinney.

SEN. MCKINNEY:

Thank you, Mr. President. Mr. President, as I understand this bill, this would, in my opinion, make, I guess, a bad situation better.

As I understand it right now, the medication order could be, this essentially would shorten the period that a person was on medication.

I rise in opposition just simply to state, and I realize that we've had Supreme Court rulings on this. I've always been uncomfortable with the idea that government, when people are deemed incompetent to stand trial, can force them to take medication to be competent.

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And then after the trial, they are back to being incompetent, I guess, once they're off the medication. So I'm going to vote no because I've never been quite comfortable with this issue.

But I do understand that for people in this situation, this bill would actually make it a little bit better for them. Thank you, Mr. President.

THE CHAIR:

Thank you, Sir. Will you remark? Will you remark further? Senator Kissel.

SEN. KISSEL:

Thank you very much, Mr. President. I understand exactly where my leader, Senator McKinney, is coming from, as well as where my Esteemed Co-Chair of the Judiciary Committee is coming from as well.

I actually think that this bill does a little bit towards helping the rights of those individuals that are suffering from incompetence and need to be medicated.

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Right now, I think, as the law states, that a judge could order that an individual could be medicated to rise to the level of competence, almost [inaudible] and what this does is relatively proscribe that time period to just the period of time where they could be, where they're facing a trial.

And after that period of time, then the court wouldn't have that ability. So as this bill was explained to me, for those that are concerned about the rights of individuals, whether they're accused of crimes or not and whether they're suffering from a mental disability or not, that this actually works in the advocate's direction of trying to allow an individual their rights to the extent possible.

And so it acknowledges that we, as a society, have a responsibility, if possible, to vindicate victims and to exercise jurisdiction to make sure that crimes are addressed.

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And if medication can allow an individual to be competent to stand trial, that's a good thing. And we should pursue that, even if the individual doesn't want to take the medication.

They should still have to face the consequences, the charges of that crime, and be found not guilty or found guilty. But after that, then the state's interest is lessened in forcing an individual to be medicated if indeed they do not consent.

And so I view this as a forward-looking piece of legislation. And for those reasons, I support the legislation. Thank you, Mr. President.

THE CHAIR:

Thank you, Senator Kissel. Will you remark?
Will you remark further on the bill? Will you remark?
If not, Mr. Clerk, please announce a roll call vote.
The machine will be open.

THE CLERK:

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An immediate roll call has been ordered in the
Senate. Will all Senators please return to the
Chamber.

An immediate roll call has been ordered in the
Senate. Will all Senators please return to the
Chamber.

THE CHAIR:

Have all Members voted? If all Members have
voted, the machine will be closed. The Clerk will
announce the tally.

THE CLERK:

Motion is on passage of House Bill 6391.

Total number voting, 35; those necessary for
passage, 18. Those voting "yea", 32; those voting
"nay", 3. Those absent and not voting, 1.

THE CHAIR:

The bill passes. Mr. Clerk.

THE CLERK:

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CONNECTICUT
GEN. ASSEMBLY
HOUSE

PROCEEDINGS
2007

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PART 7
1975-2324

002106

kkc 157
House of Representatives April 26, 2007

REP. BUTLER: (72nd)

Thank you, Madam Chair.

DEPUTY SPEAKER KIRKLEY-BEY:

The Clerk will please announce the tally.

CLERK:

House Bill Number 7217, as amended by House
Amendment Schedule "A".

Total Number Voting	135
Necessary for Passage	68
Those voting Yea	135
Those voting Nay	0
Those absent and not voting	16

DEPUTY SPEAKER KIRKLEY-BEY:

The Bill as amended passes. Will the Clerk
please call Calendar Number 178.

CLERK:

On Page 15, Calendar Number 178, Substitute for
House Bill Number 6391, AN ACT CONCERNING INVOLUNTARY
ADMINISTRATION OR, OF PSYCHIATRIC MEDICATION FOR
PURPOSES OF COMPETENCE, COMPETENCY TO STAND TRIAL,
Favorable Report of the Committee on Public Health.

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kkc
House of Representatives

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DEPUTY SPEAKER KIRKLEY-BEY:

Representative Lawlor, you have the floor, Sir.

REP. LAWLOR: (99th)

Thank you, Madam Speaker. I move acceptance of the Joint Committee's Favorable Report and passage of the Bill.

DEPUTY SPEAKER KIRKLEY-BEY:

The motion is on acceptance of the Joint Committee's Favorable Report and passage of the Bill. Will you remark further, Sir?

REP. LAWLOR: (99th)

Thank you, Madam Speaker. This Bill makes a very technical change in the existing procedures governing care being provided to persons who have been found not competent to stand trial or who, for whom that's an issue, if people are accused of committing a crime and they're actually found not guilty by reason of insanity, sorry, not competent to stand trial.

The question is the orders about medication issued by the Department of Mental Health and the

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kkc
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Department of Corrections, can they follow each other
back and forth?

This Bill allows, with the court's permission,
the medication ordered to follow the individual back
to the Department of Corrections from the Department
of Mental Health and Addiction Services.

So in other words, an offender who has been found
not competent to stand trial, a defendant, accused
offender, will be transferred initially to the
Department of Mental Health and Addiction Services.

They'll try and restore his competency, etc.,
etc. If he's going to be transferred back to the
Department of Corrections after being found competent,
usually which is the result of health treatment most
often which includes some type of medication, the
question is when he gets back to DOC, does he need a
whole new order for medication or can the orders
issued by the doctors DMHAS follow him or her back?

This would allow that to take place. It's a
relatively technical change. The common sense behind
it, I hope, is obvious and it will certainly make

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everybody's job a lot easier and be very beneficial to the person with mental illness who's affected by it.

I urge passage of the Bill.

DEPUTY SPEAKER KIRKLEY-BEY:

Thank you. Will you remark? Will you remark further on the Bill that is before us? Representative O'Neill of the 69th, you have the floor, Sir.

REP. O'NEILL: (69th)

Oh, yes. Thank you, Madam Speaker. I also would urge passage. This is truly a very technical Bill that was brought to our attention by the Department of Mental Health and Addiction Services. And I believe it will be an improvement in the public policy. Thank you, Madam Speaker.

DEPUTY SPEAKER KIRKLEY-BEY:

Will you remark? Will you remark further on the Bill that is before us? Will you remark? If not, staff and guests please come to the Well. Members take your seats. The machine will be opened and the Clerk will take the tally.

CLERK:

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The House of Representatives is voting by Roll
Call. Members to the Chamber. The House is voting by
Roll Call. Members to the Chamber, please.

DEPUTY SPEAKER KIRKLEY-BEY:

Will all Members please check the board to make
sure your vote has been properly cast? Will all
Members please check the board to make sure your vote
has been properly cast.

The machine will be locked and the Clerk will
prepare to announce the tally. The Clerk will
announce the tally.

CLERK:

House Bill Number 6391.

Total Number Voting	135
Necessary for Passage	68
Those voting Yea	135
Those voting Nay	0
Those absent and not voting	16

DEPUTY SPEAKER KIRKLEY-BEY:

The Bill passes. Will the Clerk please call
Calendar Number 204.

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614-934

2007

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SEN. MCDONALD: Anything further from Members of the Committee? If not, thank you very much.

COMM. THERESA LANTZ: Thank you very much.

SEN. MCDONALD: Is Attorney General Blumenthal here? I still don't see him. Then we will move on to James McGaughey. Good afternoon.

JAMES MCGAUGHEY: Senator McDonald, Representative Lawlor, Members of the Committee, my name is Jim McGaughey. I'm the Executive Director of the Office of Protection & Advocacy for Persons with Disabilities.

HB6391
HB6487

I'm here to talk about three bills that are on your agenda today. I have submitted written testimony, so with your indulgence, I will not read it. I will just summarize.

The first bill is House Bill 6390, AN ACT CONCERNING TREATMENT OPTIONS FOR DEFENDANTS FOUND NOT COMPETENT TO STAND TRIAL.

Under current law, if an individual is not found competent to stand trial and not restorable within a certain specified period of time, the court may remand the person to the custody of the Commissioner of Mental Health and Addiction Services, who will then seek civil commitment for the individual, placing them in a psychiatric hospital.

This bill would create the option of a court ordering DMHAS to provide services in a less restrictive setting, meaning presumably a community treatment option.

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Our office supports the measure as drafted, but I would call attention to the fact that the language here is critical, because it is DMHAS that is being ordered by the court to provide services. It is not the individual who is being ordered to accept them.

And I think that we support the bill as drafted, but we do not want to see an interpretation or a change in language that would turn it into sort of a back door approach to outpatient civil commitment, which some of you may be aware is a very controversial issue and very much opposed in the advocacy community.

The second bill is House Bill 6391, AN ACT CONCERNING INVOLUNTARY ADMINISTRATION OF PSYCHIATRIC MEDICATION FOR PURPOSES OF COMPETENCY TO STAND TRIAL. Our office opposes this bill as currently before you as drafted.

However, I understand that there has been some attempt to develop compromised language in a working has actually apparently succeeded in doing that. I don't know if you have that language before you yet, but I have reviewed it.

It seems to meet our objections so if in fact you accept amendments and substitute language that has been worked out with the Department of Mental Health and Addictions Services and the advocates that have been working with them, then I think that would be acceptable to us as well.

advocates and others with whom you have been talking on Raised House Bill 6391 in crafting a compromise.

It's generally good to involve some Legislators in that process too. I haven't seen the language that you are talking about, so nothing's done until the House and Senate has voted on it, and generally we need to participate in that process.

JAMES MCGAUGHEY: Absolutely, Senator. I didn't see it myself until just after lunchtime today. So we weren't involved in that, but--

SEN. MCDONALD: Are there any other questions?
Senator Meyer.

SEN. MEYER: Mr. McGaughey, hi. Just wanted to chat with you about your comments on House Bill 6390, which provides for treatment options for defendants not found competent to stand trial.

You said at one point in your testimony, we recognize that there are some individuals who may not be competent to stand trial, but for whom civil commitment to a psychiatric hospital is an unnecessary and unhelpful step.

Could you elaborate a little on that, because one of the things we obviously want to be very careful about is if we find someone not competent to stand trial, that that person, if a danger to himself or herself or the community, then, you know, we're going to get in trouble.

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SEN. MCDONALD: Thank you. Are there any questions?
If not, thank you very much.

JEANNE MILSTEIN: Thank you.

SEN. MCDONALD: Next is Dr. Michael Norko. Good
afternoon.

DR. MICHAEL NORKO: Good afternoon, Senator
McDonald, Representative Lawlor, distinguished
Members of the Judiciary Committee. My name is
Dr. Michael Norko. I'm the Director of the
Whiting Forensic Division of Connecticut Valley
Hospital.

I'm here today to speak in support of House
Bill 6390, AN ACT CONCERNING TREATMENT OPTIONS
FOR DEFENDANTS FOUND NOT COMPETENT TO STAND
TRIAL, as well as House Bill 6391, AN ACT
CONCERNING INVOLUNTARY ADMINISTRATION OF
PSYCHIATRIC MEDICATION FOR PURPOSES OF
COMPETENCY TO STAND TRIAL.

Both of these bills are related to one
particular statute, Statute 5456D, related to
competency to stand trial. So I'd like to just
summarize that statute and highlight a few
particulars, rather than read through my
written testimony for both of these bills.

When defendants are found not competent to
stand trial by reason of the psychiatric
disability, the court may order them into
treatment in a DMHAS facility, if the court
finds that the person is likely to be restored
to competence to stand trial on that basis.

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So they come into treatment in DMHAS. We provide treatment. And if the person is restored, we report to the court.

There are times, however, when in several places along the judicial process, the court may hear testimony that the person cannot be restored to competence to stand trial.

House Bill 6390 deals with that issue. At the moment, when a court hears from the testifiers that the person's disabilities are such that they can't be corrected, and therefore the person is not likely to be restored, the court has two options, either to simply discharge the person or to order that the Commissioner of DMHAS apply for civil commitment for that individual.

Most of the time that works out appropriately, but there are many cases, there are several a year at least, in which we get such an order and we understand that the person is not an appropriate candidate for civil commitment.

We don't think that they meet the criteria and so we're forced by statute to submit an application to probate court we don't actually believe in and that we actually might believe is a false application.

What this bill is intended to do is to give to the court the option of allowing, after hearing testimony, the Commissioner to allow for treatment in a less restrictive setting, rather than apply for civil commitment.

It doesn't take away from the courts' discretion to order that the Commissioner apply for civil commitment, but if the court feels that it's heard enough, that the person does not meet criteria and that the person can be managed in a least-restrictive alternative, it can order the Commissioner to do that.

The one thing that I want to add to my written testimony is that a concern has been raised that there might be misinterpretation that the court could expect our Office of Court Evaluation testifiers to come into court prepared with some sort of a treatment plan for the individual and community.

That's not what this was intended to do. If there is no treatment plan for an individual and community, it's likely that we would not be able to testify that the person could be handled in a less restricted alternative.

So this is not meant as a way to force these evaluators who only meet very briefly with the defendant to evaluate whether they are competent to stand trial, to actually have to prepare a treatment plan for them.

The second bill, House Bill 6391, deals with the issue of what happens when a defendant who is not competent to stand trial is not willing to accept treatment once they've become hospitalized for the purposes of restoring their competence.

We have two mechanisms for doing that in Connecticut. One was created by the

Legislature in 2004, and this was a civil mechanism which is working quite well, and which we have used almost exclusively since it was made available to us.

The other mechanism is the mechanism through the criminal court, where the court, when it determines that the government's interests in adjudicating guilt or innocence, override the individual's liberty interest in avoiding unwanted medication and has the authority to order the individual to receive that medication.

What sometimes happens when that occurs, though, is that the person may be restored to competence to stand trial, they are found competent, and then return to the Department of Correction, at which point they might decide that they no longer wish to receive medication and they stop taking medication and become sick again, often with a psychotic illness and then become incompetent to stand trial.

There is no mechanism with the Department of Correction to medicate these individuals. What this bill proposes to do is to create an option for the court in circumscribed situations to permit the involuntary medication of the defendant in order to maintain competence once it's already been obtained.

Since we submitted the original legislation, we have had several discussions with the Connecticut Legal Rights Project and with Advocacy Unlimited, and they have raised concerns with which we agree about due process.

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So I do want to highlight several things that we wish to change. The original bill was drafted to give permission for the court to receive a report from a healthcare guardian.

We wish to change that so that it would be required, so that in Line 84 the word may will be changed to shall. Similarly, in Line 95, the word any would be changed to the since it is a required report.

There was also a concern raised which we thought was valid, that there might be some situations in which a defendant who was capable of giving informed consent was forced to receive unwanted medication under this mechanism.

So we support deleting the words unwilling or in Line 93 to eliminate that possibility, so that medications would then only be ordered to maintain competence of the individual if the individual was not able to provide informed consent.

There was also no review of this order, which could go on essentially indefinitely, and so we have written a new section that would become a new Section 5 and be inserted after Line 112 that would read, in order for continued involuntary medication to maintain competency to stand trial, entered under subsection 4, shall be reviewed by the court every 180 days while it remains in effect.

At each review, the court will receive a supplement to report of the healthcare guardian, and must find each of the criteria enumerated in subsection 4 by clear and convincing evidence in order to continue the order for involuntary medication. And the subsequent section would then be renumbered.

There is one additional change that we'd like to support that was pointed out to us by representatives of the Office of the Public Defender, which is that the language in the new subsection 4, referring to these charges that this order remaining valid while the charges are pending is perhaps not specific enough.

And it was really intended to mean until the time of the sentencing. So in Lines 109 to 110, we would propose deleting the words while the criminal charges against the defendant are pending, and inserting the words until the sentence has been imposed to make it clear that this order did not go forward after the time that the defendant had been sentenced.

Thank you for your patience in listening to this testimony. At this time, I'd be happy to answer any questions that you have.

SEN. MCDONALD: Thank you, Doctor, and those proposals that you just talked about, do you have those in writing, and can you--

DR. MICHAEL NORKO: All except the last were submitted in the latest version of the written testimony that was provided. The last one from the concerns raised by the Office of the Public

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Defender is not yet in writing yet at this time.

SEN. MCDONALD: When you get it all together, why don't you get copies to our Committee staff and we'll take a look at it. Any questions? If not, thank you very much. Next is Commissioner Jerry Farrell.

COMM. JERRY FARRELL: Good afternoon, Senator McDonald, Representative Lawlor, other distinguished Members of the Committee. I'm Jerry Farrell, Jr. I'm the Commissioner of the Department of Consumer Protection.

It is my pleasure to submit testimony this afternoon on House Bill 6983. This is one of the Department's own legislative initiatives.

The Department, as you may know, administers occupational and professional licensing for a very broad variety of trades.

Our rule is to license the practitioners by ensuring that they complete the competency requirements that are established by their respective examining boards.

We also enforce the laws and regulations of each respective profession, through our own occupational and professional enforcement unit. We visit worksites. We ensure standards of conduct by the tradesperson. We do not determine building code compliance.

The Department receives consumer complaints regarding all of those trades that we license.

JOINT
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was never a denial that somebody else owned the furniture.

REP. LAWLOR: Okay. Are there any other questions? If not, thank you very much, Sir.

ATTY. WILLIAM BUMSTER: Thank you, ladies and gentlemen.

REP. LAWLOR: Next is Melissa Marshall.

MELISSA MARSHALL: Good afternoon, Senator McDonald, Representative Lawlor, and Members of the Judiciary Committee. My name is Melissa Marshall, and I'm the Executive Director of Advocacy Unlimited.

I am here today to testify on two bills, House Bill 6391, AN ACT CONCERNING INVOLUNTARY ADMINISTRATION OF PSYCHIATRIC MEDICATION FOR THE PURPOSES OF COMPETENCY TO STAND TRIAL, and House Bill 6987, AN ACT CONCERNING THE RIGHTS OF INMATES WITH MENTAL ILLNESS.

Advocacy Unlimited is an organization run by and for people with psychiatric disabilities that promotes and protects the rights of people with psychiatric disabilities. AU provides an intensive education course to individuals with psychiatric disabilities across the state.

For the last 36 months, AU has been offering this course to residents of the medium security section of the Whiting Division at Connecticut Valley Hospital.

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AU is opposed to House Bill 6391 as drafted. The present version permits forcibly medicating competent pre-trial detainees without sufficient due process.

That is, it allows for competent individuals who are presumed innocent to be forcibly medicated without even a substitute decision-maker, such as a conservator, or without judicial oversight subsequent to the Superior Court's order.

However, AU supports the bill with amendments proposed by Dr. Michael Norko previously, and I have a copy of that, and I believe you have copies of that.

Dr. Norko, in collaboration with AU and the Connecticut Legal Rights Project, has developed substitute language that all parties find acceptable.

It provides for periodic review every 180 days, requires the healthcare guardian to file supplemental reports by changing the word may to shall, and deleting the words or unwilling, thus eliminating the possibility of the defendant capable of informed consent from receiving unwanted medication under this provision.

While AU does not support the forced medication of individuals, it does not oppose the proposed legislation with the recommended changes that are attached.

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AU supports House Bill 6987, AN ACT CONCERNING THE RIGHTS OF INMATES WITH MENTAL ILLNESS. The bill helps ensure that inmates with psychiatric disabilities have access to vital mental health services, with the considerations that NAME mentioned earlier. I'd be happy to take any questions that you might have.

REP. LAWLOR: Thank you. Are there questions? If not, thanks very much, and we'll keep in mind the, your support of Dr. Norko's proposed compromise. That seems like that's a sensible resolution--

MELISSA MARSHALL: Thank you very much. I appreciate that.

REP. LAWLOR: Next is Robert Kalman.

ROBERT KALMAN: Good afternoon, Representative Lawlor and Honorable Members of the Judiciary Committee. My name is Robert Kalman. I am an Advocacy Unlimited Board Member and graduate, residing at Whiting Forensic of Connecticut Valley Hospital.

Today I am here to speak on House Bill 6391 and to urge you to promote opportunity, kindness and protect the rights of individuals with psychiatric disabilities.

With my submitted testimony are presented abstracts from cases and publications addressing the opinions of different courts on the legal implications of forced administration of neuroleptics.

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In the past, I have taken Zyprexa and Depakote for approximately two years, and I prefer the term neuroleptic to antipsychotic. The connection between the medication and the perceived psychosis is often nebulous and the effects go more to behavior than to the dynamics of the mind.

Neuroleptic is the term coined by the French chemist who developed the first such drug, Thorazine, in the early 1950s. They took it from the Greeks to convey the similarities they saw in persons who took Thorazine with persons given nerve agents.

After two world wars, they knew what nerve agents did. From 2001 at Whiting, I witnessed the forced applications of neuroleptics. Witnessing the forced application of neuroleptics shocks the faculty of consciousness and thought.

Can you please imagine the impact on the individual who is subjected to an intrusive penetration by a needle in his body? The person screams, begging for mercy. You can see the fear in their eyes.

I have included an extract from *The Journal of the American Academy of Psychiatry and the Law*. Haldol is the drug most often forcibly administered. The graphic here depicts how the brain changes during Haldol withdrawal in terms of receptor occupancy.

It is revealing and disturbing. It evokes the commercial this is your brain, this is your

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brain on Haldol. Crime warrants punishment with equal justice and by due process.

The legislative history demonstrates a clear intention to bring due process protections, when the state seeks to medicate a defendant involuntarily in order to render him competent.

In the light of the legislative history and court decisions in the legislation before you, House Bill 6391, Line [n] must delete the word unwilling or in order to protect the pre-trial defendant capable of providing informed consent.

Connecticut is the Constitution State. It has been ever since the 1959 General Assembly enshrined the nickname in our state books. It's proclaimed on your standard-issue license plates. This subscript is no mere slogan. It's the law.

Our constitution in Connecticut was designed to protect the individual from the collective [Gap in testimony. Changing from Tape 2A to Tape 2B.]

--but able, but unwilling but able to consent, must be protected from forced medication.

In light of the legislative bill before you in a hearing on forced medication, due process requires no lighter burden on the state in this context. The same principle is articulated in State v. Garcia and the state must shoulder this burden of proof.

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I concur with the Connecticut Legal Rights Project in their proposal. Thank you for the opportunity to address the Committee today. Thank you.

REP. LAWLOR: Thank you very much, Sir. Are there questions from Members of the Committee? If not, thanks again.

ROBERT KALMAN: Thank you.

REP. LAWLOR: It's very thoughtful. Next is Al Chiucarello.

ALBERT CHIUCARELLO: Good afternoon, Representative Lawlor, Senator McDonald, and distinguished Members of the Judiciary Committee.

My name is Albert J. Chiucarello. I work at Council 4 AFSCME, and I'm here today with Presidents Pepe Leone and Testa from the NP-4 Unit.

I am here to speak in favor of House Bill 6984. The union is promulgating this bill in that that DOC does not have enough staff to man their correction officer posts.

The bill would require the DOC to staff their facilities utilizing a multiplier of 2.2 to determine the number of correction officers needed to man the continuous operation posts at each facility.

At the present time, the Department of Correction is utilizing a shift relief formula that does not allocate enough correction

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I submitted my testimony, and if you could read that and give me the least bit of respect, that would be great.

REP. LAWLOR: Thanks, Mr. Ciriello.

MARK CIRIELLO: Thank you, Representative.

REP. LAWLOR: Are there any questions? If not, thank you very much.

MARK CIRIELLO: Okay. Thank you.

REP. LAWLOR: Next is Susan Aranoff.

SUSAN ARANOFF: Good afternoon, Senator McDonald, Representative Lawlor, and the remaining distinguished Members of the Judiciary Committee. You guys have my appreciation for staying this long, and because of the late hour, I will be fairly brief.

HB 6390
HB 6391

I have submitted written testimony on three of the bills that were on today's agenda. House Bill 6987, AN ACT CONCERNING RIGHTS OF INMATES WITH MENTAL ILLNESS TO RECEIVE TREATMENT.

And, oh, I should say before I get too far into this. I am a staff attorney for Connecticut Legal Rights Project, which is a nonprofit agency that provides legal services to indigent adults who have or you are perceived as having psychiatric disabilities and who receive or are eligible to receive services from DMHAS.

And I provide legal services to individual clients. I also supervise four paralegal

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So if the person, you know, is clinically suitable to receive treatment in the community, they should. And so again, the Department might have its own reasons for doing that.

But it just a long way to, in the direction of their recovery initiative, which, you know, they are leaders leading the country in that direction. So that's another giant step.

The bill that I want to spend the remainder of my time on, House Bill 6391, AN ACT CONCERNING INVOLUNTARY ADMINISTRATION OF PSYCHIATRIC MEDICATION FOR PURPOSES OF COMPETENCY TO STAND TRIAL. You've also heard a lot of testimony on that one today.

And when Dr. Norko testified, he indicated that he had been meeting with some members of the advocacy community and that together we had kind of come up with compromised language.

My apologies to Members of the Committee for not including any Legislators in that process, but in the future, we will know to do that.

And Dr. Norko did meet with us and negotiate in good faith, and the language that we came up with, while we would never support a bill that expands the state's power to involuntarily medicate people, we wouldn't oppose it in its modified form.

If I could just indulge the Committee for a couple more minutes on that. We strongly believe that the bill as drafted would violate the U.S. Constitution.

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The reasons why is that the United States Supreme Court in the area of involuntary medication has found that to be, that we have a significant liberty interest in avoiding the administration of unwanted psychiatric medication.

And that right can only [Gap in testimony. Changing from Tape 2B to Tape 3A.]

--the state can do that. And the way the bill is drafted, it would permit continuous unmonitored medication of people who have been found competent to stand trial and are either unable or unwilling.

So you could be capable of giving consent to medication, not be dangerous, be competent to stand trial, be someone who is presumed innocent, and have the state, for an indefinite period of time, pre-trial detainees can wait a long time, administer medication to you that can be fatal.

Even in the best of circumstances people have to make these awful choices between alleviating psychiatric symptoms or, you know, and enduring really significant side effects.

So for all those reasons we have significant issues with the bill as drafted and as everyone has indicated, and Mike Norko has given you the language that's also attached to my testimony.

He was proposing to not be able to medicate people who are able to consent, but not

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consenting. And then also to have periodic judicial review, I think 6 months or 180-day orders, which fairly comports with how medication is done on the civil side.

The last thing, and then I promise I'll be done, is that even with the amendments, the proposed amendments, one marked difference, administration of medication on this criminal side and the difference on the treatment side, because these are folks who either has to be said are being medicated only for competency purposes, not for treatment purposes. Big distinction there.

But one difference is, is that in all of the situations on the civil side, there is a substitute decision-maker. There's someone who stands between the patient and the docs who decides what meds, what combinations, what dose, who checks in and sees, you know, how the person is doing.

Are they experiencing side effects, are they over-sedated, are they gaining weight, you know, these meds have serious issues.

In this side of things, there is a healthcare guardian, but that person isn't a decision-maker. That person's purpose is to inform the court. So that person will do some investigation before the court issues an order.

And then under the new bill, that person would submit reports back to the court. But that person in no way determines what the docs do.

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The docs are free once the courts, you know, turns on the on switch, docs are free to administer whatever meds they want, whatever dose, and whatever combination and there is no substitute decision-maker.

When I discussed this with Dr. Norko, you know, he was sympathetic and it really is an anomaly, because it's just not how it goes on the civil side of things.

But he thought it was kind of too much to take on at this point in time to change that, because that would be a question of changing all of 5456D or K or whatever it is. Not just this particular bill.

But I just wanted to point that out to the Committee, because it's pretty significant. In every other situation, advanced directives, you know, guardians, all those other situations, there's always someone between the patient and a doc making decisions, but not here. Thank you. I'd be happy to take questions.

REP. LAWLOR: Thank you. Are there questions? If not, thank you very much. Roger Vann.

ROGER VANN: Senator McDonald, Representative Lawlor, and Members of the Judiciary Committee, my name is Roger Vann. I'm the Executive Director of the ACLU of Connecticut.

The ACLU of Connecticut generally supports House Bill 6987, AN ACT CONCERNING THE RIGHTS OF INMATES WITH MENTAL ILLNESS, except for any portions that conflict with settlement



STATE OF CONNECTICUT

OFFICE OF PROTECTION AND ADVOCACY FOR
PERSONS WITH DISABILITIES
60B WESTON STREET, HARTFORD, CT 06102-1551

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Executive Director

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Testimony of the Office of Protection and Advocacy for Persons with Disabilities
Before the Judiciary Committee

HB 6987

Presented by: James D. McGaughey
Executive Director
February 5, 2007

Good afternoon and thank you for this opportunity to share our Agency's perspective on several of the bills on your agenda today.

Raised Bill No. 6390, AAC Treatment Options for Defendants Found Not Competent to Stand Trial would allow criminal courts the option of ordering DMHAS to provide community placement and mental health treatment of certain defendants who have been found to be not competent to stand trial, and non-restorable pursuant to the provisions of Section 54-56d of the General Statutes. Under current law, the court can order DMHAS to pursue civil commitment to a hospital for these individuals. DMHAS can then decide, usually after some period of hospitalization, whether the individual is a good candidate for furlough and conditional release to a community program. Our Office does not oppose the general concept of this bill because we recognize that there are some individuals who may not be competent to stand trial but for whom civil commitment to a psychiatric hospital is an unnecessary and unhelpful step. The bill affords the court the option of ordering DMHAS "to provide services to the defendant in a less restrictive setting." However, please note that the language about who is getting ordered to do what is critically important. We would oppose any attempt to change or interpret this language such that an individual who does not meet the criteria for civil commitment to a hospital could be ordered to accept outpatient treatment if that individual is unwilling to do so.

Raised Bill No. 6391, AAC Involuntary Administration of Psychiatric Medication for Purposes of Competency to Stand Trial would allow a court to order involuntary administration of medication in situations where an individual is determined to have been restored to competency pursuant to Section 54-56d, but then refuses to consent to continue to receive psychotropic medication. Our Office opposes this measure. While we recognize that there may be some individuals who will evade prosecution by refusing to consent to continued medication, forcing a competent person to take powerful, and in many cases potentially risky drugs that can significantly alter thought processes, moods and emotions constitutes a major intrusion by the state on fundamental personal rights. Although it is not often reported in the news media, many of the psychotropic drugs used to treat major mental illnesses are associated with significant side effects and risks to physical health. Different individuals respond differently to these medications. While the drugs may control symptoms in many cases, and many people find them useful, they also can deaden emotions, impede thought processes, cause considerable changes to body metabolism, and sometimes can even cause serious damage to organ systems. With some of these drugs, the potential for harmful effects on health increases over time. It has been our Office's experience that many people who refuse to consent take

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medication have had prior bad experiences with particular drugs, or articulate other sound reasons for not wanting to take them. Because the decision about whether the benefits of taking these drugs outweigh the risks is a highly personal one with implications for a person's ability to think and feel emotions as well as for one's physical health, the law should not impose these drugs to anyone who is competent to make informed decisions on their own.

Raised Bill No. 6987, AAC the Rights of Inmates with Mental Illness would address a number of the issues our staff has noted during the course of investigating complaints and advocating for prisoners with mental illness. In fact, the provisions of the bill run parallel to some of the terms of a settlement agreement our Office and DOC entered into several years ago to resolve litigation we had initiated over the treatment of inmates with mental illness in maximum security and designated mental health housing units. The bill would extend the reach of those provisions of that settlement agreement beyond those particular units. Specifically it requires that inmates be afforded an opportunity to privately communicate with a mental health professional (as opposed to having to discuss one's mental health status through a cell door where neighbors and custodial staff can listen in). It would also require: face-to-face assessments prior to initiating medication; reviews of proposed disciplinary sanctions involving inmates with mental illness to ensure that discipline is not being initiated simply in response to a behavior that is a manifestation of the inmate's mental illness; and, where possible, an opportunity for a mental health professional to intervene prior to using force against an inmate with a known mental illness.

Our Office fully supports this bill. However, I cannot help but note that there is some risk that if it becomes law, we may create the impression that our prison system will become a safe and acceptable place to send people with mental illness. In truth, prisons are, and will always be unsatisfactory places to house people with psychiatric disabilities. Nonetheless, it is estimated that between 12 to 16 % of DOC inmates have mental illnesses serious enough to require treatment. In fact, as is true across the country, the number of inmates in Connecticut prisons with significant mental illnesses now far exceeds the number of people being served in state psychiatric hospitals. Incarceration has an enormous impact on the lives of those individuals, and they, in turn, significantly impact the resources of the law enforcement, judicial and correctional systems. So, while we want to protect the civil rights of inmates who have or who may develop mental illnesses, we do not want to encourage the practice of incarcerating even more people with mental illness by creating the inevitably false impression that we are making our prisons into good treatment and programming environments. Above all, we cannot lose sight of the reality that many (though admittedly not all) of the people with mental illness who are now being charged and convicted of offenses would never have gotten into trouble in the first place if relevant community-based services were more readily available.

On a more technical note, I am given to believe that one of the provisions of the bill may not be fully consistent with language in a consent decree the State entered into a number of years ago regarding mental health services at the York institution. Our Office was not involved in that case, but I believe you will be hearing some suggested language from a representative of the ACLU.

Thank you for your attention. If there are any questions, I would be happy to try to answer them.

IN THE JUDICIARY COMMITTEE

BEFORE THE HONORABLE SENATOR McDONALD, THE HONORABLE REPRESENTATIVE LAWLOR,

THE DISTINGUISHED MEMBERS OF THE JUDICIARY COMMITTEE

H.B. 6391

PUBLIC HEARING, MONDAY, FEBRUARY 5TH, 2007

Testimony of Robert Kalman, Board Member for Advocacy Unlimited
P.O. Box 351 Silver Street
Middletown, Connecticut 06457

Good afternoon, Representative Lawlor, Senator McDonald, and Honorable members of the Judiciary Committee. My name is Robert Kalman. I am an Advocacy Unlimited Board Member and graduate, residing at Whiting Division of Connecticut Valley Hospital.

Today, I am here to speak on House Bill 6391 and to urge you to promote opportunity, kindness, and to protect the rights of individuals with psychiatric disabilities. With my submitted testimony are presented extracts from cases and publications addressing the opinions of different courts on the legal implications of forced administration of neuroleptic medication, (3 are from Connecticut, 1 from Massachusetts, and 1 from the Supreme Court). Following those is an extract from *Myler's Side Effects of Drugs*, (a Dutch publication that tracks and analyzes the side effects of medications). History shows us that a Government's use of force must be restricted when it pertains to forced administration of neuroleptics.

In the past, I've taken Zyprexa and Depakote for approximately two years and I prefer the term "neuroleptic" to "antipsychotic." The connection between the medication and the perceived psychosis is often nebulous, and the effects go more to behavior than to the dynamics of the mind. Neuroleptic is the term coined by the French chemists who developed the first such drug, Thorazine, in the early 1950s. They took it from the Greeks, to convey the similarities they saw in persons who took Thorazine with persons given nerve agents. After two World Wars, they knew what nerve agents did.

From 2001, at Whiting I witnessed the forced applications of neuroleptics. Witnessing the forced application of medication – it shocks the faculty of consciousness and thought. Can you please imagine

the impact on the individual who is the subject of the intrusive penetration by a needle into his body? The person screams, begging for mercy. I have heard it numerous times. You can see the fear in their eyes. I have included an extract from The Journal of the AMERICAN ACADEMY OF PSYCHIATRY AND THE LAW. Haldol, is the drug most often forcibly administered. The graphic here depicts how the brain changes during Haldol withdrawal, in terms of "receptor occupancy," seen going left to right. It is revealing and disturbing; it evokes the commercial: "This is your brain; This is your brain on Haldol." Crime warrants punishment ~ with equal justice and by due process! The legislative history demonstrates a clear intention to bring due process protections, when the state seeks to medicate a defendant involuntarily in order to render him competent to stand trial.

In the light of the Legislative history and Court decisions, in the legislation before you H.B. 6391, line [n] must delete the words "unwilling or" in order to protect the pretrial defendant capable of providing informed consent. Connecticut is the Constitution State. It has been ever since the 1959 General Assembly enshrined the nickname in our statute books. It's proclaimed on your standard-issue license plates, this sobriquet is no mere slogan – it's the LAW. Our constitution in Connecticut was designed to protect the individual from the collective and has worked amazingly well in the past. The state and the mental health system can't identify a "collective brain" – as there is no such thing. Pre-trial detainees who are able, but unwilling to consent to medication must be protected from "forced medication".

In light of the significant liberty interest at stake in a hearing on forced medication, due process requires no lighter burden on the state in this context. The same principal is articulated in State v. Garcia, and the state must shoulder this burden of proof. I concur with the Connecticut Legal Rights Project in their proposal

Thank you for the opportunity to address the committee today on this important bill.

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Attachments for Mr. Robert Kalman's testimony

Documents include:

- Limitations of Brain Imaging in Forensic Psychiatry
- Neuroleptic and Antipsychotic Drugs
- Doe v. Hunter
- State v. Garcia
- State v. Jacobs
- Guardianship of Roe
- Washington v. Harper

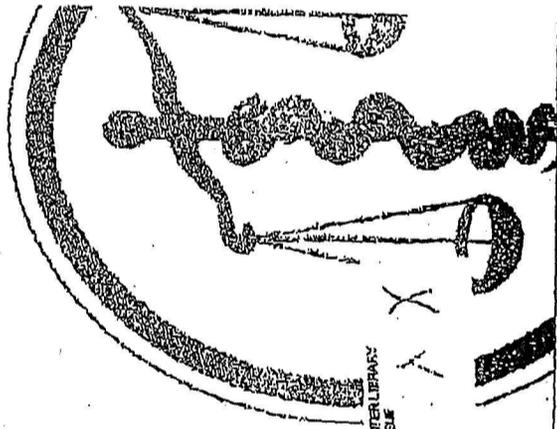
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ANALYSIS AND COMMENTARY

Limitations of Brain Imaging in Forensic Psychiatry

Donald Reeves, MD, Mark J. Mills, JD, MD, Stephen B. Billick, MD, and Jonathan D. Brodie, PhD, MD

J Am Acad Psychiatry Law 31:81-96, 2003

Over the several decades of its existence, brain imaging has moved from the laboratory to the bedside. Brain imaging now plays a routine role in the diagnosis of many central nervous system disorders. However, the appeal of a "mapshot" of the brain extends beyond medicine. Brain imaging, now available in color, with its immediacy and vividness, has sometimes proven irresistible to defense attorneys seeking to exonerate their clients of responsibility for tragic crimes. Putting aside the question of whether brain imaging means fairer justice system predictions on the assumption of free will, misrepresentation of brain imaging may mislead a judge and jury.

The Technology of the Machines

Brain imaging, with its many technological variables and requirements for clinical inference, has not advanced to the point that it can be introduced in court without real and significant caveats. These caveats include limitations and caveats to potential manipulation and distortion within the cerebral system of the court. The reality, in using brain imaging, the forensic psychiatrist needs education in

the complexity of the technology and must make statements cautiously to avoid saying more than the science warrants.

Given the steps in brain imaging—from the generation of an image to the conclusion drawn by the expert—the psychiatrist must consider several questions. What is to be measured? Is the technique sensitive, accurate, precise, and reproducible? What do the measurements mean? Each of these questions is discussed in this article.

A brain image is the vivid representation of anatomy or physiology through a pictorial or graphic display of data. The data are some property in or of the brain (e.g., accumulation of x-rays, magnetic moments or dipoles, electrical signals, radioactive events) that the imaging technique detects, often without successively invading the brain. The image may be structural, chemical, electrical, psychological, or physiological. Techniques include computed tomography (CT), magnetic resonance imaging (MRI), including functional MRI (fMRI) techniques such as blood oxygenation level-dependent (BOLD) MRI, and diffusion tensor imaging (DTI), magnetic resonance spectroscopy (MRS), quantitative electroencephalography (qEEG), positron emission tomography (PET), single-photon emission computed tomography (SPECT), and magnetoencephalography (MEG).

Each imaging technique produces a detectable signal within a characteristic sensitivity, precision, accuracy, and fidelity for the physiological process being measured. To interpret these signals, the clinician must apply a model. That is, the data must be recon-

Dr. Reeves is an Assistant Professor of Psychiatry, University of Medicine and Dentistry of New Jersey, Newark, NJ. Dr. Mills is a professor of Research Science, Medical Group, Washington, DC. Dr. Billick is Clinical Professor of Psychiatry, New York Medical College, New York, NY. Dr. Brodie is an Assistant Professor of Psychiatry, New York University School of Medicine, New York, NY. This paper was presented in part by Dr. Reeves at the 2002 Annual Meeting of the 21st Annual Meeting of the International Association of Forensic Psychiatry, January 24, 2003, Atlanta, Georgia. Dr. Brodie is a member of the American Academy of Psychiatry and Law, New York, NY. Dr. Brodie is also a member of the American Academy of Forensic Psychiatry, New York, NY. Dr. Brodie is also a member of the American Academy of Forensic Psychiatry, New York, NY. Dr. Brodie is also a member of the American Academy of Forensic Psychiatry, New York, NY.

RITVEL, MILL, BRICK, ET AL

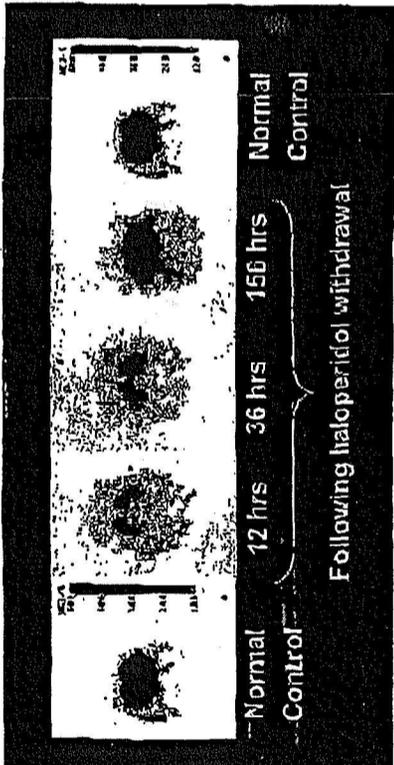


Figure 3. Serial changes in receptor binding following withdrawal of medication in a patient with schizophrenia. The figure was obtained by permission of Robert Scahill, from "Serial ¹⁸F-fluorodeoxyglucose PET studies to measure changes in striatal dopamine D₂ receptor occupancy in schizophrenia patients" (Smith et al, Biol Psychiatry, 2005;57, copyright 2005), Society of Biological Psychiatry.

ment nonresponders might be expected to show no change in glucose metabolism after a haloperidol challenge. The results refute this hypothesis. Normal persons and treatment nonresponders show a post-challenge decrease in glucose utilization, and treatment responders show virtually no change in glucose metabolism after a haloperidol challenge.²¹

Unexpected results are obtained. It is not always the case that improved functioning on some aspect of cognition is associated with activation of the area responsible for that cognitive task. For example, cholinergic agonists such as physostigmine (an acetylcholinesterase inhibitor) improve working memory. However, enhancement of basal working memory by physostigmine is associated with reduced right prefrontal cortical activation, compared with activation in the absence of physostigmine (Fig. 4). Figure 4 shows PET scans measuring regional cerebral blood flow. The first row shows grouped control (without physostigmine) right prefrontal cortical (PFC) activity compared with the brain at rest when healthy subjects perform a task requiring the recall of faces the subjects have seen. The second row shows grouped PFC activity compared with the brain at rest when the subject is performing the memory task after having received physostigmine. Physostigmine improves the subject's performance (23 treat-

ment responders might be expected to show no change in glucose metabolism after a haloperidol challenge. The results refute this hypothesis. Normal persons and treatment nonresponders show a post-challenge decrease in glucose utilization, and treatment responders show virtually no change in glucose metabolism after a haloperidol challenge.²¹

Brain Imaging in the Courtroom

The uncertainties only increase when these images are used in the courtroom. In the neuropsychiatric evaluation for the court, brain imaging often purports to demonstrate functional status and thereby medicolegal causation. Images are used to try to demonstrate that the defendant has a psychiatric condition that caused him or her to be unaware of, or not responsible for, his or her actions or that the defendant's psychiatric condition predisposed the criminal behavior. The psychiatric conditions that imaging claims to identify include factors that define a condition or behavior, major psychiatric disorder, and limitations of cognitive functioning. If the defendant is found criminally responsible, imaging has been used to support or define a diagnosis that suggests that a normal sentence would cause irreparable harm or be excessively punitive. Moreover, the fact that imaging may support a psychiatric diagnosis 4, 5,

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Meyer's Side Effects of Drugs, 14th Edition
 M.N.G. Dukas and J.K. Aronson, editors

SECTION EDITOR: P.K.M. LUNDE

6 Neuroleptic and antipsychotic drugs

George M. Simpson, Edmond H. Pi and John J. Sramek

INTRODUCTION

Since the introduction of chlorpromazine in the early 1950s, a large number of phenothiazines with antipsychotic properties have been discovered. Several other chemical structures with similar therapeutic properties have also been introduced. The range of usefulness of these agents includes the treatment of schizophrenia, mania, certain organic psychoses, certain depressive states, and a variety of lesser indications. In schizophrenia they are used not only to treat acute episodes but also for long-term maintenance treatment.

These drugs also have a distinct pattern of adverse effects, some of them severe; the latter are, in part, due to the effect which these drugs, with the partial exception of atypical neuroleptic drugs, such as clozapine, have on the extrapyramidal system. No systematic reporting and evaluating system for documenting these adverse effects has evolved. Even the recognition of an adverse effect may be difficult in an individual case; for example, akathisia may be difficult to differentiate from an exacerbation of the illness and often has a deleterious effect on compliance (1^R). Thus, the true incidence of adverse effects is not known, and it is often uncertain to what extent one drug differs from another.

There have been many shifts of view on the correct dosages to be used, and no simple rules can be given. For example, some adverse reactions are more likely to occur at high or more prolonged doses, yet once they have been established certain of them may, within limits, be aggravated by lowering the dose and alleviated by raising it. In one double-blind study, newly admitted schizophrenic patients were randomly given haloperidol 10, 30, or 80 mg/day orally. Survival analysis showed no differences among the three groups, nor were there any differences in extrapyramidal effects. In a study of fluphenazine 10, 20, and 30 mg orally there was no differences in outcome, but dose-related extrapyramidal effects (2). These findings throw into profile the very important issue of whether higher dosages of antipsychotic drugs provide any additional beneficial effect in the treatment of acute or exacerbated schizophrenia, and whether such doses are really

more prone to produce extrapyramidal effects (as is commonly believed) or not. More recent opinion would be that high doses are no more beneficial and cause more adverse effects (3^C).

The wide range of dosages used, not only in different conditions but also within the same condition, may be related to large interindividual differences in plasma concentrations. Despite much research in the last decade, consistent relations between plasma concentrations of neuroleptic drugs (including their metabolites) and therapeutic effects have not been demonstrated. The relationship between unwanted effects and plasma concentrations remains indistinct. A relationship between plasma and CSF concentrations and extrapyramidal adverse effects has been claimed (SED-11, 105). Behavioral worsening on high-dose neuroleptic drugs is a well-recognized clinical phenomenon (4^C, 5^C). This has also been described in patients with very high plasma concentrations of neuroleptic drugs (6^C). Convulsions have also been described in association with very high circulating concentrations of clozapine (7^C). While there are no clear indications at the present time for routine monitoring of plasma concentrations, such measurement may be helpful in evaluating and managing treatment failures or dealing with unusual or severe adverse effects. In the case of clozapine, plasma concentrations are thought to be useful for monitoring clinical response. The entire problem of finding for the individual patient a dosage which balances safety against efficacy is likely in this field to center on the issue of avoiding severe neurological problems such as tardive dyskinesia; the dosage question is therefore further discussed in the neurological section of the monograph which follows.

Choice of neuroleptic drug

In controlled studies, all typical current neuroleptic drugs have been shown to be similar in therapeutic efficacy, provided they are used in truly equivalent doses. Occasional differences may relate to the methodology of the studies, e.g. diagnoses, difficulties of arriving at equivalent dosages in early studies of new

drugs, etc. Drugs such as promazine are much less potent on a milligram basis and less efficacious perhaps because of adverse effects which may well prevent the prescription of equivalent therapeutic dosages. The choice of a drug, therefore, depends on other factors, namely the adverse effect profile of the drug, the clinical characteristics of the patients, and perhaps the desired route of administration. If rapid treatment is necessary, a drug which has a parenteral form will be required. In other situations, an oral liquid may be deemed necessary; in situations where compliance is a problem, oral long-acting agents such as penfluridol can be given at weekly intervals under appropriate supervision. Otherwise, parenteral long-acting agents such as fluphenazine decanoate may be given at more extended intervals.

From a therapeutic point of view, all typical neuroleptic drugs are equal; no single drug or chemical class appears to be superior to another. While there is a good rationale for using 'more sedative' drugs for treating excited patients, there has nonetheless been a tendency of late to use more potent drugs which can be administered parenterally in higher dosages. A rationale for using more than one neuroleptic in certain situations perhaps exists, but data to support this are lacking. In younger excited males who are vulnerable to acute dystonic reactions, the use of more sedative agents such as chlorpromazine or thioridazine that are less likely to produce extrapyramidal adverse effects (particularly acute dystonic reactions) may have merit. At the other end of the scale, patients who are elderly or vulnerable to cardiac arrhythmias may do better on low dosages of more potent neuroleptic drugs such as haloperidol, fluphenazine, and thiothixene. Low-potency drugs have an adverse effect profile characterized by sedation and multiple peripheral effects, most notably anticholinergic (blurred vision, constipation, ejaculatory disturbance), cardiovascular (hypotension, dysrhythmias), and endocrine (weight gain, sexual dysfunction). In a hot sunny climate one might recommend not using chlorpromazine because of photosensitivity. While high-potency drugs have minimal peripheral effects, they cause more CNS effects, such as extrapyramidal effects and behavioral changes.

In general, one selects an agent according to the clinical condition of the patient, the prior response to a specific agent (if known), compliance, the patient's age and physical state, and the adverse effects that would be more or less acceptable to individual subjects. The adage that one should not dismiss older drugs simply because they are old is pertinent here; neuroleptic drugs, which have been available for a long time, may be a better choice for routine use because their properties and risks are best defined. They may also be

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preferable for use in specialized cases, e.g. pregnant than drugs about which we still know less. All clinicians who use drugs of this type should be familiar with several different neuroleptic drugs that have between them a spectrum of adverse effects and potencies, so that they can select and modify their treatment. Even if 'atypical' neuroleptic drugs, like clozapine, become widely available and practical to use, it is unlikely that this spectrum of variation will expand very much, so that one new drug will become dominant; alternative drugs will continue to be necessary. An awareness of the adverse effects profile of individual neuroleptic drugs will continue to be a major determining factor in the choice of an antipsychotic agent. Clozapine has certain advantages over typical neuroleptic drugs. It is particularly efficacious in the treatment of the negative symptoms of schizophrenia and has significant therapeutic effects in treatment-resistant patients, on both positive and negative symptoms. Clozapine does not produce extrapyramidal effects and improves and may prevent tardive dyskinesia (8^R, 9^R).

Risperidone is efficacious on both positive and negative symptoms and has a reduced risk of extrapyramidal effects (10^C). There is a relation between dose and extrapyramidal effects (11^C). Comprehensive reviews of specific antipsychotic drugs, including clozapine, olanzapine, risperidone, remoxipride, risperidone and zotepine have been provided in earlier volumes (SEDA-16, 55; SEDA-17, 58; SEDA-18, 52; SEDA-19, 51; SEDA-20, 46; SEDA-21, 000). The superiority of atypical neuroleptic drugs is now well demonstrated because the adverse effects profile is advantageous; thus, it is certain that in the near future the choice of agents will be between one atypical drug and another.

In this Chapter, information on all neuroleptic drugs will be dealt with in a single monograph; the limitations between the alternative drugs in the class will be dealt with in the appropriate subsections of the monograph.

ADVERSE REACTIONS PATTERN

General and toxic reactions. Neuroleptic drugs can produce a variety of adverse effects in several organ systems. Extrapyramidal reactions and sedation are common; less common are seizures, unwanted behavioral effects, and tardive dyskinesia. Most neuroleptic drugs have anticholinergic effects and commonly produce dry mouth, blurred vision, and constipation. Postural hypotension is common. These effects usually disappear when a neuroleptic drug is stopped or the dosage is reduced.

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Non-specific, usually reversible, electrocardiographic changes have been reported, but their relation to the clinical picture has not been defined. Sudden death related to cardiac arrest cannot be fully explained on the basis of the administration of these drugs. With the exception of a few cases of sudden death in women and children, men, and children, the most common adverse effects are hypotension, hyperglycemia, hypotension, and growth hormone inappropriate secretion and disturbance of sex hormones. These effects have been probably documented, although they are not fully understood. Neuroleptic drugs frequently produce all of these effects. There are reports of anaphylactic reactions, but they are rare. The effects of neuroleptics on the cardiovascular system are viewed as delayed forms of hypotension, hypotension, and blood dyscrasias. The hypotension is a result of α -blockade and may be represented by a fall in blood pressure. Since neuroleptic drugs induce prolactin concentrations, there is concern that they may increase the risk of breast cancer. Although studies have failed to implicate neuroleptics, it would be best to avoid neuroleptic drugs in patients with a hormone-dependent breast tumor. Effects on fertility, amenorrhea, and infertility were consequences of the effects of typical neuroleptic drugs and of risperidone. Clinicians should be aware that patients changed from these agents to drugs like chlorpromazine, quetiapine, or clozapine are therefore at risk of pregnancy (12).

ORGANS AND SYSTEMS

Cardiovascular Hypotension is the most commonly observed cardiovascular adverse effect of antipsychotic drugs, particularly after administration of those that are also potent α -adrenoceptor antagonists, such as chlorpromazine, thioridazine, and clozapine. A central mechanism involving the vasomotor regulatory center may also contribute to the lowering of blood pressure. Antipsychotic drugs of high and intermediate potency, such as haloperidol and loxitan, have minimal α -blocking effects and would be less likely to cause such changes, although in one report orthostatic changes (a fall of 30 mmHg) were reported with these drugs in 27 and 22% of cases respectively (SED-11, 106). An exception to the relatively safe use of high-potency agents has been noted in the combination of droperidol with the narcotic fentanyl, which may cause marked hypotension (13).

Orthostatic hypotension and syncope have been reported after clozapine (14).

Hypotensive episodes often occur after postural changes and may therefore be particularly hazardous in susceptible patients, such as the elderly and those with depleted intravascular volume or reduced cardiovascular output. The risk of orthostatic hypotension is markedly increased after oral administration. The combination of α -adrenoceptor blockade and sedative effects may explain the increased risk of falling when taking antipsychotic drugs (SEDA-12, 52).

Antipsychotic drugs are vagolytic and can increase resting and exercise heart rates. Bradycardia is unusual. Reduction in exercise tolerance may occur as a result of drug-induced increases in plasma catecholamine concentrations and concurrent α -adrenoceptor blockade (15).

Electrocardiographic changes are relatively common during treatment with antipsychotic drugs, but there is a lack of unanimity regarding the clinical significance of these findings. The changes that are generally considered benign and non-specific are reversible after withdrawal. Potentially more serious changes include prolongation of the QT interval, depression of the S₁ segment, flattened T waves, and the appearance of U-waves. Non-specific T wave changes are commonly seen during the mid-afternoon, and may be related to the potassium shift and other changes that result after meals, so that a pre-breakfast cardiogram may be more desirable. Two types of T wave changes have been described in treated men with type I (with rounded, flat, or notched T waves) and type II (with dihasic T waves) (16). Prolongation of the QT interval is most commonly seen with thioridazine and represents delayed ventricular repolarization (a quinidine-like effect); this action has spurred investigation of these agents as antiarrhythmic drugs (SEDA-5, 42). Prolongation of the QT_c interval is also seen more often in patients taking more than 2000 mg of chlorpromazine equivalents daily (17). In one report, the use of carbamazepine and haloperidol led to prolongation of the QT_c interval and cardiac complications (18). Cardiac dysrhythmias have been reported, and include atrial dysrhythmias, ventricular tachycardia, and ventricular fibrillation. Several cases of torsade de pointes have been reported in association with thioridazine (19), 20) and with high-dose intravenous haloperidol (SEDA-20, 36). The risk of cardiac dysrhythmias is dose-related, and is increased by pre-existing cardiovascular pathology (SEDA-2, 48), interactions with other cardiovascular or psychotropic drugs (particularly the highly anticholinergic tricyclic antidepressants), increased cardiac sensitivity in the elderly, hypokalemia,

and vigorous exercise. In elderly people it is advisable to avoid low-potency neuroleptic drugs, such as thioridazine, which produce significantly more cardiographic changes than high-potency agents, such as fluphenazine (21^c). In any patient with pre-existing heart disease, a pre-treatment electrocardiogram with routine follow-up is recommended.

The possibility that some of the cardiac effects of thioridazine and chlorpromazine may be related to metabolites as well as the parent compound has been explored (16^c, 22^c) but needs further investigation.

Cardiomyopathy has been associated with antipsychotic drugs, including clozapine (23^{ab}, 24^c, 25^{cd}).

The role of neuroleptic drugs in sudden death is controversial (SEDA-18, 47; SEDA-20, 36; 26^{cd}). There may be multiple non-cardiac causes, including asphyxia, convulsions, or hyperpyrexia. However, some cases of sudden death in apparently young healthy individuals may be directly attributable to cardiac dysrhythmias after treatment with thioridazine or chlorpromazine (27^{ab}). There have also been reports with parenteral and high-dose haloperidol, implying a cardiotoxic mechanism (SED-11, 107), and this may also hold true for any other neuroleptic drug used in a similar manner. Cardiac arrest was attributed to risperidone in a patient with no history of cardiac disease (28^c), and one case of asystolic cardiac arrest was reported after intravenous haloperidol (29^c). Several cases of torsade de pointes have been reported with intravenous haloperidol used with lorazepam to treat delirium (SEDA-18, 47; 30^c) and with low-dose oral haloperidol (31^c). Acid mucopolysaccharide deposition may be associated with antipsychotic treatment as a possible mechanism contributing to rare cardiovascular adverse events (SED-11, 107).

Polyserositis (pericardial effusion, pleural effusion, and pericarditis) has been reported in a patient treated with clozapine (32^c).

Respiratory The gag and cough reflexes can be suppressed by neuroleptic drugs (SED-11, 107). Periodic examination of the gag reflex, particularly in patients with tardive dyskinesia, has been recommended.

Acute respiratory failure, which may be complicated by pneumonia, has been reported in psychiatric patients receiving long-term neuroleptic drugs (SED-11, 107). Pulmonary embolism without a primary focus was surprisingly frequent in cases of sudden death. Aspiration asphyxia in patients treated with neuroleptic drugs has been described (SED-11, 107), and it has been suggested that this could have been due to laryngeal-pharyngeal dystonia (33^c). Patients with asthma treated with antipsychotic drugs may be at increased risk of serious complications of asthma (34^{ab}).

A single case of fatal pulmonary edema was reported

in 1982 in association with haloperidol (35^c). Diaphragmatic, laryngeal, and glottal dyskinesias have been described as part of the tardive dyskinesia syndrome and may cause respiratory complications (36^c, 37^c).

Nervous system Behavioral adverse effects Over-sedation and/or drowsiness is the most common adverse effect of neuroleptic drugs. However, most patients develop tolerance to this effect. In addition, neuroleptic drugs can cause a depression-like syndrome. This should be differentiated from neuroleptic-induced akinesia. Long-acting drugs have been particularly implicated (SED-11, 107; 38^{ab}). However, a double-blind, placebo-controlled, randomized study of long-acting neuroleptic drugs did not support this conclusion (39^c).

Toxic delirium caused by neuroleptic drugs with potent anticholinergic properties has been widely reported (SED-11, 107), and has been reported with low-dose clozapine (40^c). Physostigmine can alleviate these symptoms and is useful diagnostically. Other uncommon behavioral effects include psychotic exacerbation, catatonia-like states, and Kluver-Bucy-like syndrome (SED-9, 81; SEDA-7, 67; 38^{ab}).

The extent to which neuroleptic drugs impair mental activity is disputed. A recent study has shown that the more anticholinergic antipsychotic drugs impaired short-term verbal memory (SEDA-18, 48; 41^{cd}). One study showed that schizophrenic patients who took neuroleptic drugs had superior information processing compared with unmedicated schizophrenic patients; the authors claimed that neuroleptic drugs probably do not cause, and may actually reverse, slowness of information processing in schizophrenic patients (42^c). However, a substantial number of schizophrenic patients declare that neuroleptic drugs slow their thinking, cause them to forget, and remove interest and motivation. These responses to neuroleptic drugs are claimed to be dysphoric and are often associated with drug-induced extrapyramidal symptoms, particularly akathisia (43^c). Akinesia may also contribute to feelings of apathy and diminished spontaneity, and can be difficult to distinguish from the negative symptoms of schizophrenia or the psychomotor retardation of post-psychotic depression (44^c). Impairment of cognitive function related to neuroleptic drugs has been reviewed extensively (45^{ab}).

Obsessive-compulsive symptoms have been described with both typical neuroleptic drugs (e.g. chlorpromazine) and atypical neuroleptic drugs (e.g. clozapine and risperidone) (SEDA-19, 51; SEDA-20, 47; 46^c, 47^c).

Effects on the convulsive threshold Neuroleptic drugs cause slowing of α -rhythm and increased synchronization and amplitude with superimposed sharp fast activity. They also induce discharge patterns in the EEG similar to those associated with epileptic seizures

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of the grand mal or focal types (SED-11, 108). In a study of clozapine-induced EEG changes, 13% of patients developed spikes with no relation to dose or serum concentration of clozapine; 53% developed slowing of the EEG. Compared with plasma concentrations below 300 ng/ml, a clozapine serum concentration of 350-450 ng/ml led to more frequent and more severe EEG slowing (48^{CR}). There were considerable differences in EEG patterns between classical neuroleptic drugs and clozapine (49^{CR}). Clozapine-treated patients showed significantly more stage 2 sleep, more stable non-REM sleep (stages 2, 3, and 4), and less stage 1 than patients treated with haloperidol or flupentixol. In a longitudinal study, clozapine significantly improved sleep continuity and significantly increased REM density, but did not affect the amount of REM sleep (50^{CR}). The incidence of convulsions associated with typical neuroleptic drugs is relatively rare (probably less than 1%) (SED-9, 81).

Predisposing factors to neuroleptic drug-induced seizures include an abnormal EEG, pre-existing CNS abnormalities, parenteral administration of high doses, and a family history of seizures or febrile convulsions (51^C).

It has been suggested that the less potent sedative neuroleptic drugs (aliphatic or piperidine phenothiazines) lower the convulsive threshold more than the potent neuroleptic drugs (piperazine phenothiazines) (52^C). However, variable and unpredictable effects on seizure activity related to butyrophenones have been reported (53^C). The prevalence of seizures with clozapine is higher than average (about 5%) and is dose-dependent. Recent reports have described four patients who developed seizure activity while taking therapeutic or subtherapeutic doses of clozapine (54^C, 55^C). An *in vitro* technique, claimed to assess the relative risks of neuroleptic drug-induced seizures, was reported to produce striking differences between neuroleptic drugs in spike activity in hippocampal slices. Tentatively, molindone, pimozide, and butaclamol are the safest compounds *in vitro* (56^C). Data from a well-designed *in vivo* study are needed before conclusions can be drawn.

Extrapyramidal adverse effects can be classified into four groups: acute dystonic reactions, akathisia, (pseudo)parkinsonism, and tardive dyskinesia. In addition, there are less common tardive conditions, which will be discussed below. Except for tardive dyskinesia, the extrapyramidal adverse effects are largely reversible by giving anticholinergic drugs and withdrawing or lowering the dosage of the neuroleptic drug. These effects have been well reviewed elsewhere (SED-9, 78; SEDA-7, 61; SEDA-16, 40; SEDA-18, 48; 38^B).

The CYP2D6 genotype is not a determinant of sus-

ceptibility to acute dystonic reactions, but may be a contributory factor in antipsychotic drug-induced movement disorders, including tardive dyskinesia (57^C). The hypothesis that extrapyramidal adverse effects may result from neurotoxicity due to oxidative damage by neuroleptic drugs has been also reviewed (SEDA-20, 39; 58^C). Several studies have found a relation between neuroleptic drug dosages, extrapyramidal adverse effects, and the degree of D₂ receptor occupancy (SEDA-18, 48; 59^C, 60^{CR}). Atypical neuroleptic drugs, such as olanzapine, quetiapine, risperidone, and sertindole, cause fewer extrapyramidal effects than typical neuroleptic drugs (61^{CR}, 62^{CR}, 63^{CR}, 64^{CR}). However, there are reports of extrapyramidal effects associated with these atypical neuroleptic drugs (65^C-67^C). There was a significant linear relation between mean change scores on the Extrapyramidal Symptom Rating Scale and increasing risperidone dose (68^{CR}). Clozapine in particular has a more favorable extrapyramidal effects profile than other neuroleptic drugs (69^{CR}).

Acute dystonic reactions These are dramatic, acute-onset muscular spasms that occur within the first 24-48 hours after starting therapy, or in a few cases when the dosage is increased. A circadian pattern of acute dystonic reactions has been described (70^{CR}). The muscles of the head and neck are mainly affected: opisthotonos, torticollis, oculogyric crisis, and macroglossia (all of which can occur together) are dramatic effects relieved by the use of intramuscular antiparkinsonian or antihistaminic drugs. Acute laryngeal dystonia is probably an under-reported yet potentially lethal adverse effect. It can mimic anaphylaxis (71^C). A recent comprehensive review has strongly advocated immediate intravenous administration of anticholinergic drugs to relieve acute dystonia. Men are more prone than women to this reaction, and the young more so than the elderly (72^B). Drug-induced dystonia can also be precipitated by emotional arousal (73^C, 74^C). Temporomandibular joint dislocation associated with neuroleptic drugs has been reported (75^{CR}).

Akathisia Incidence rates of akathisia are reported to be 25-75%. Most cases occur within the first few days of antipsychotic treatment, and dosage increase has been identified as a risk factor (76^{CR}). Akathisia is a variant of the restless legs syndrome associated with anxiety and/or dysphoria (SEDA-19, 44; SEDA-20, 36; 77^C-79^C). It may be confused with an exacerbation of the disorder being treated. Suicidal tendencies can occur in psychotic patients who developed neuroleptic-induced akathisia (80^C). On the other hand, recent evidence suggests that depressive symptoms may not be induced or worsened, and may even be reduced, by prescribing atypical neuroleptic drugs (81^C, 82^C, 83^{CR}).

Subjects show various degrees of restlessness and an inability to sit or stand still; in severe cases, the presentation may merge with behavioral disorders. Akathisia observed at any time, whether treated or not, has been associated with a poor outcome. Antiparkinsonian agents are sometimes helpful, β -blockers often more so (SEDA-19, 43; 84^c, 85^c, 86^c). Low-dosage mianserin has also been used in the treatment of akathisia (87^c).

Parkinsonism and pseudoparkinsonism Parkinsonism or pseudoparkinsonism induced by neuroleptic drugs is clinically indistinguishable from postencephalitic or classical parkinsonism. It begins in the head and neck and causes loss of movement in the muscles, which spreads to the arms, producing varying degrees of akinesia and rigidity. Cases of neuroleptic-induced parkinsonism with dysphagia as one of the main features have been reported (SEDA-19, 44; 88^c, 89^c, 90^{cr}). Clozapine has little or no parkinsonian effect (91^{cr}). Olanzapine was effective in extinguishing typical psychotropic-induced tremor (92^c). Different strategies for the treatment of neuroleptic-induced parkinsonism have been reviewed (SEDA-18, 48; SEDA-20, 40; 93^c, 94^c). The current WHO recommendation is that anticholinergic drugs should not be given routinely to patients who are starting to take neuroleptic drugs.

Tardive dyskinesia Originally, tardive dyskinesia was described as comprising spontaneous irregular movements, mainly affecting the mouth and tongue; chewing, licking, and smacking movements of the tongue and lips were involved, including protrusion of the tongue outside the buccal cavity and various abnormal movements of the tongue within the buccal cavity. This condition is now also known to include choreoathetoid movements of the fingers and toes, sometimes associated with rocking movements, and akathisia; truncal muscles and respiratory muscles may be involved.

Tardive dyskinesia usually occurs after long-term use of neuroleptic drugs, but some cases of early onset (less than 1 year) have been reported (SED-11, 108). In a prospective study the cumulative incidence of tardive dyskinesia was 5% after 1 year, 10% after 2 years, 15% after 3 years, and 19% after 4 years. The authors suggested that prevalence increases with increasing duration of neuroleptic drug exposure and that the increase is linear for at least the first 4–5 years (95^c). Recently the average incidence rate of tardive dyskinesia was estimated at 0.053/year and the 5-year risk was 20% (SEDA-18, 49; 96^{cr}). In another study, the cumulative incidence in patients over age 45 was 26, 52, and 60% after 1, 2, and 3 years respectively (97^{cr}). Figures vary from center to center. In a recent study there was a cumulative incidence of presumptive tardive dyskinesia

of 6.3% after 1 year, 12% after 2 years, 14% after 3 years, and 18% after 4 years (98^c). In patients receiving neuroleptic drugs the prevalence has been reported as 0.5–65% (99^{cr}). One reviewer has gone so far as to suggest that the prevalence of tardive dyskinesia among all patients taking neuroleptic drugs is so low as not to justify any alarm (100^c). No cases of the severe form were found in a 12-year follow-up study of 99 chronically hospitalized patients who had received extensive neuroleptic treatment (101^c). Absence of severe tardive dyskinesia was reported in a group of Hungarian schizophrenic out-patients (102^c). Prevalences of 8.4–39% were reported in other cross-cultural studies of different ethnic groups (103^c, 104^{cr}, 105^{cr}, 106^{cr}).

These wide variations in prevalence are perhaps due to a lack of precise objective definition of the syndrome. The availability of standardized rating scales (107^{cr}) and research diagnostic criteria represents a significant advance in resolving these problems (108^c). A multinational study of tardive dyskinesia in Asians ($n = 982$) found the overall prevalence of tardive dyskinesia was 17% (range 8.2–22.1%). There was a significant difference in tardive dyskinesia prevalence from center to center within the same ethnic group. Reasons for such a difference remains unclear. Two studies showed that Afro-Americans have a greater incidence of tardive dyskinesia than whites (96^{cr}, 97^{cr}). At present there is still a lack of convincing evidence that there are true interethnic differences in the prevalence of tardive dyskinesia (109^c, 110^{cr}).

The tongue protrusion test, i.e. an inability to maintain tongue protrusion, is a measure of severity, and is present mainly when tardive dyskinesia occurs in an advanced form; abnormal movements within the buccal cavity occur over a much wider range of severity, suggesting that abnormal tongue movements may be more helpful in the early detection of tardive dyskinesia (111^c).

Considerable information, although not entirely consistent, is available on predisposing factors (SED-11, 108; 99^{cr}, 112^{cr}, 113^{cr}). The condition is apparently more common in women and in the elderly; elderly women in particular seem prone to develop the condition in a relatively severe form (SED-11, 108; 99^{cr}, 114^c). It has been suggested that estrogen plays a role (115^c, 116^{cr}). Here too, however, the epidemiology has been challenged; not all studies have confirmed that women are more vulnerable (117^{cr}), although the consensus supports this conclusion.

Negative symptoms of schizophrenia were associated with the severity of orofacial tardive dyskinesia, and positive symptoms were associated with limb dyskinesia (118^c). A recent study showed that while age, sex,

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diagnosis, and race had no significant effects on presumptive tardive dyskinesia, it was predicted by greater antipsychotic drug exposure; each increase in antipsychotic drug dose of 100 mg chlorpromazine equivalents resulted in a 6% increase in the hazard of presumptive tardive dyskinesia (119^C).

The relation between handedness and tardive dyskinesia has been studied. The estimated rate ratio, comparing left-handers and mixed-handers with pure right-handers, adjusted for confounders, was 0.25. The handedness effect was stronger for men than for women (120^C). Autosomal inheritance of two polymorphic Ser9Gly alleles (2-2 genotype), but not homozygosity for the wild-type allele (1-1 genotype), was a susceptibility factor (121^C).

The incidence of tardive dyskinesia among patients with extrapyramidal effects is 2.32 times higher than among those without, and the risk could be even higher during the first 2 years of exposure (95^R).

Whether certain typical neuroleptic drugs are more likely than others to cause tardive dyskinesia is unknown (112^R), but virtually all currently prescribed neuroleptic drugs, with the possible exception of atypical neuroleptic drugs, such as clozapine, have been associated with it (122^C). Although there are findings suggesting that atypical neuroleptic drugs are associated with a low risk (123^C, 124^C), this needs to be evaluated in more prospective studies (123^R, 125^R).

There have been reports of potential cases of tardive dyskinesia attributed to risperidone, an atypical neuroleptic drug (126^C-128^C). At present, clozapine could be regarded as the drug of choice for patients with tardive dyskinesia, especially for those with disabling and/or dystonic features and for those who require long-term neuroleptic drug therapy (129^C). A review of the literature did not support the notion that drugs with central anticholinergic properties constitute a particular risk factor in tardive dyskinesia. However, anticholinergic antiparkinsonian drugs tend to produce reversible increases in the severity of dyskinesic movements, and the authors suggested that antiparkinsonian agents can be used as pharmacological probes in the evaluation of neuroleptic drug-induced movement disorders (102^C, 130^R, 131^R). A history of drug-induced parkinsonism and tardive dyskinesia is sometimes strongly associated.

Prolonged treatment with neuroleptic drugs increased the risk of tardive dyskinesia (117^C); this finding has been supported by the preliminary results of a prospective study of the condition, but again there are conflicting results (112^R, 113^R). One particular out-patient study showed that the duration of treatment with neuroleptic drugs did not explain the differences in severity of tardive dyskinesia (114^C).

A positive correlation between tardive dyskinesia and circulating neuroleptic concentrations has been reported (132^R); however, in one study there was no significant difference in serum concentrations of thioridazine, its metabolites, or radio-receptor activity between patients with and without tardive dyskinesia (133^C). Histories of more and longer drug-free periods were more common in moderate and severe tardive dyskinesia than in mild forms (134^C). There was a positive association between neuroleptic-free periods and persistent tardive dyskinesia (135^R). Some studies have suggested that diabetes mellitus may be a risk factor for tardive dyskinesia (SEDA-16, 47; 136^C).

There are various other possible risk factors, e.g. organicity, affective disorder, a history of electroconvulsive therapy or alcohol abuse, and individual susceptibility (137^R).

There are insufficient data to support the use of drug holidays in detecting the risk of tardive dyskinesia, but they may help to diagnose the covert type by unmasking dyskinesia (112^R).

The rate of reversibility of tardive dyskinesia after drug withdrawal is 0-90% (99^R). Since patients with tardive dyskinesia rarely have subjective complaints (138^C), periodic assessment of dyskinesic movements is essential to make an early diagnosis and may increase the opportunity to reverse the disorder. Some reports are relatively encouraging regarding reversibility (139^C, 140^C); the characteristics of reversible and irreversible forms have been reviewed, but no firm conclusions can be drawn (141^R). However, the prognosis of tardive dyskinesia was better in patients treated for a smaller proportion of time and in those treated with lower doses (142^C).

In dealing with the whole problem of dyskinesia the pre-eminent role of prevention must be emphasized (137^R), particularly because treatment is so unrewarding. Various agents have been studied; they include agonists and antagonists at various CNS neurotransmitters, and newer dopamine receptor antagonists, which supposedly act only at D₂ receptors (dopamine receptor sites not linked to adenylyl cyclase). The few supposedly positive results that have been claimed for a number of drugs must be interpreted with great caution (SEDA-18, 49; 143^R). Reserpine has been used with apparent improvement in symptoms, but deterioration followed withdrawal (144^C), and reserpine has also been reported to cause the condition. A double-blind study of propranolol showed short-term improvement, and two of four subjects responded to long-term propranolol (145^R); unfortunately this study has not been replicated. Tetrahydroisoxazopyridinol (THIP), a new and less toxic analogue of γ -aminobutyric acid

(GABA), which acts as a GABA antagonist, produced no change in tardive dyskinesia, either in a dose-finding study or a 4-week placebo-controlled study, but pre-existing parkinsonism increased significantly and eye-blinking rates fell (146^c); these are preliminary findings, more than a decade old, and hard to interpret. More recently, vitamin E (α -tocopherol), with its antioxidant properties, has been reported to be effective (SEDA-17, 56; 147^u, 148^c, 149^r, 150^c). A recent study showed that an abnormal lipid peroxidation is associated with tardive dyskinesia, and extended this abnormality to measurements of lipid-corrected vitamin E in plasma (151^c). In addition to clozapine (8^r, 9^r), olanzapine has also been reported to improve tardive dyskinesia (152^c-154^c).

Many other differential diagnoses must be considered in evaluating tardive dyskinesia. For example, spontaneous dyskinesias are not rare, and were found in 5.8% of individuals in 18 population studies (SED-11, 109). Even higher rates have been recorded, especially among elderly patients; senile dyskinesias in two studies of drug-free elderly subjects occurred in 9 and 37% of individuals, respectively (155^c, 156^c). There is also evidence that dyskinesic movements can be a feature of severe chronic schizophrenia unmodified by neuroleptic drugs (SED-11, 109; 157^c, 158^r, 159^{cr}, 160^{cr}, 161^{cr}, 162^r), which could mean that neuroleptic drugs may merely be triggering already latent dyskinesias in schizophrenic patients.

Tardive akathisia Akathisia, when it occurs, can be an early problem, appearing within days or weeks, but this is not necessarily the case. A 1986 review (163^r) considered 24 cases of tardive akathisia seen over a long period: in three of these the condition had appeared after only 1 or 2 months of neuroleptic drug therapy, but the remainder had been treated for at least 1 year, and seven had been treated with neuroleptic drugs for at least 5 years. Whereas tardive dyskinesia most often starts in the bucco-oral region and extends to the fingers and occasionally to the lower limbs and trunk, tardive akathisia most often affects the legs or is described as a generalized sensation throughout the limbs and trunk. Moreover, while a reduction in dosage will induce a temporary worsening of masked tardive dyskinesia and an increased dosage an improvement, the effects of dosage changes on akathisia are less certain.

Tardive Tourette's syndrome There have been at least seven published cases of Tourette's syndrome ascribed to antipsychotic drugs and emerging either during treatment or after withdrawal. Some authors believe that tardive Tourette-like syndrome may be a subtype of the more frequent tardive dyskinesia, because it can

be masked by an increase in neuroleptic drug dosage and exacerbated by withdrawal. However, the symptoms can readily be confused with exacerbation of the underlying psychosis; misdiagnosis of the condition, at least in some of the published case reports, cannot be completely ruled out.

Tardive dystonia This is a rare, late-onset, persistent dystonia associated with neuroleptic drugs, which usually affects young men. Its prevalence is 1-2% (164^c). It tends to affect the muscles of the neck, shoulder girdle, and trunk, causing opisthotonos. Pisa syndrome is a special form that involves tonic flexion of the trunk to one side accompanied by slight backward rotation, in the absence of other dystonic symptoms. Antecollis is a rare form of tardive dystonia, in which forward bending of the neck can cause inspiratory obstruction (165^c). Sometimes patients with tardive dystonia can become incapacitated (166^c, 167^c).

The differential diagnosis includes idiopathic torsion dystonia, parkinsonism, idiopathic torticollis, Huntington's disease, Wilson's disease, and Meige's syndrome (blepharospasm, oromandibular dystonia). Anticholinergic drugs, cholinergic drugs, dopamine receptor agonists and antagonists, dopamine-depleting agents, β -blockers, GABA agonists, benzodiazepines, carbamazepine, electroconvulsive therapy, and thalamotomy have been used to treat this condition, but none has shown any consistent therapeutic effects (164^c, 168^c). Clozapine, which has been reported to improve tardive dyskinesia, is particularly indicated for subjects who remain psychotic (169^r, 170^{cr}). Marked improvement of tardive dystonia after replacing haloperidol with risperidone in a schizophrenic patient has been reported (171^r).

Rabbit syndrome 'Rabbit syndrome' is a late-onset extrapyramidal adverse effect associated with antipsychotic drugs. It is characterized by a rapid tremor of the lips and occasionally the jaw. The movements usually respond well to antiparkinsonian agents and withdrawal of antipsychotic drugs. It has been suggested that the rabbit syndrome is the clinical converse of tardive dyskinesia (172^r).

Low-dosage maintenance treatment for schizophrenia

The acceptability of neuroleptic drugs by both patient and doctor may be limited by extrapyramidal and other adverse effects. If these are dose-related, using the lowest effective dosage for maintenance treatment may minimize the risk (SEDA-17, 49). Unfortunately, there is little evidence on how low the dosage should be to prevent relapse. As a result, there is a general tendency to use higher doses than necessary. In a double-blind

comparison of a group of stabilized outpatients taking a low dosage of fluphenazine enanthate (1.25–5 mg every 2 weeks) with a group taking a standard dosage (12.5–50 mg every 2 weeks), relapse rates were higher in the low-dose group (56%) than in the standard-dose group (7%) (173^c). However, patients in the low-dose group had a better outcome in terms of some measures of psychosocial adjustment and family satisfaction. Patients in the low-dose group had fewer signs of tardive dyskinesia, and relapses led less often to re-admission to hospital: they also responded more readily to treatment with temporary increases in medication than patients treated with standard doses. In a comparison of a low dose (5 mg) with a standard dose (25 mg) of fluphenazine decanoate every 2 weeks, there was no significant differences in relapse at 1 year (174^c). Nor was there a difference in survival at one year, but at 2 years survival was significantly better with the 25-mg dose (64%) than with the 5-mg dose (31%) (175^{cm}).

The dose-response relationships for a variety of adverse effects of antipsychotic drugs have been reviewed (176^a). Although the dose-response relationships for extrapyramidal effects are not fully understood, the evidence supports a dose-related effect. The relationship is probably not linear and is influenced by several factors, but it is reasonable to conclude that systematic attempts to use the lowest possible clinically effective dosage should be strongly encouraged. The author of this review speculated that it is possible that there are susceptible patients in whom tardive dyskinesia can occur at a relatively low cumulative or average daily dose, while in others increasing doses beyond this range may not lead to substantial increases in the risk of tardive dyskinesia. Hyperprolactinemia is dose-related, but there is wide interindividual variability in the magnitude of this effect. The same applies to peripheral autonomic effects.

Since in most patients high dosages do not lead to better therapeutic effects, but are associated with more frequent and severe adverse effects, the use of the smallest dosage necessary to produce antipsychotic benefit is recommended. When sedation is required, the concurrent use of moderate doses of a neuroleptic drug with a benzodiazepine may be preferable to the use of high dosages of a neuroleptic drug alone.

Three cases of radial nerve palsy were reported in demented elderly patients confined to wheelchairs who were treated with haloperidol. The combination of extrapyramidal and sedative adverse effects, added to wheelchair confinement, may have resulted in pressure on the upper arm with subsequent neuropathy (177^c).

Neuroleptic malignant syndrome The neuroleptic malignant syndrome is a rare but potentially fatal dis-

order characterized by muscle rigidity, hyperthermia, altered consciousness, and autonomic dysfunction (178^a). This description applies to most of the approximately 70 cases reported since 1960, but the syndrome is still poorly defined and overlaps to some extent with lethal catatonia, neuroleptic-induced hyperpyrexia, and sudden death due to cardiac dysrhythmias. Similar symptoms have also been reported in non-schizophrenic patients after exposure to dopamine-depleting drugs (179^c) and after withdrawal of indirect dopamine receptor agonists (180^c), and there is no consensus as to the boundaries, causes, or management of the syndrome (SEDA-18, 50; 181^c, 182^c). Critical reviews have been published recently (183^a, 184^a), and comprehensive reviews have been provided in earlier volumes of SEDA (SEDA-11, 47; SEDA-14, 50).

The syndrome is reported most often in young men, may appear suddenly days to weeks after initiating or intensifying drug therapy, and usually lasts 5–10 days after withdrawal. The prevalence has been suggested as less than 1% (185^c), but the precise frequency is unknown, and a trend towards fewer reports in recent years suggests that factors such as the use of lower dosages of neuroleptic drugs may be important. In a 1986 review it was argued that the neuroleptic malignant syndrome represents a heterogeneous group of neuroleptic-induced extrapyramidal syndromes with concurrent fever, and the existence of neuroleptic malignant syndrome as discrete syndrome was questioned (186^a).

There is no consistent evidence that one neuroleptic drug or class is more or less likely to produce the syndrome. It has been reported with atypical neuroleptic drugs, such as clozapine (187^c–189^c, 190^c, 191^c, 192^{cm}, 193^c) and risperidone (194^c–199^c), although less often than with typical neuroleptic drugs. It is thought to be rare with clozapine. However, relatively more cases have been associated with high-potency antipsychotic drugs, and the course of the syndrome may be particularly prolonged and difficult to treat when depot forms of these drugs have been used. A recent review found insufficient evidence to support the concept of an atypical neuroleptic malignant syndrome with novel antipsychotic drugs (200^c).

Patients with neuroleptic malignant syndrome are more likely to be agitated or dehydrated before the syndrome develops, often need restraint or seclusion, and have received larger doses of neuroleptic drugs soon after hospitalization. Previous treatment with ECT increases vulnerability (201^a). The risk of developing the syndrome is highest when neuroleptic drug treatment is begun or when the dosage is increased. Although it is unusual, the syndrome can occur while

neuroleptic drug dosage is being reduced (SEDA-19, 46).

The appearance of severe extrapyramidal dysfunction, primarily rigidity, underlies the majority of case reports, and may provide the key to understanding and preventing the syndrome. The appearance of severe rigidity may explain the increased body temperature, because of heat build-up by the muscles, and it may contribute to the rise in serum CPK activity, reflecting a risk of myoglobinuria and acute renal failure. Increased temperature (hyperthermia) can lead to dehydration and electrolyte imbalance, leaving the patient exposed to infections and other consequences. Laboratory abnormalities may include raised CPK activity and electrolyte abnormalities, but these are generally not diagnostic, since they occur in other hyperthermic conditions.

Neuroleptic malignant syndrome without pyrexia has been reported (SEDA-19, 4; 202^c). The syndrome shares clinical features with malignant hyperthermia, which is genetically acquired, but there does not appear to be a common pathophysiological link between the two (SED-11, 111).

Early recognition and prompt treatment of this severe extrapyramidal syndrome, in particular immediate recognition of new rigidity, may be the best means of arresting its progress and preventing further complications (181^f). If there is fever, although other possible causes should be investigated there should be no delay in instituting appropriate treatment of severe extrapyramidal effects, and in particular anticholinergic treatment of severe parkinsonian rigidity. There is no proven specific treatment, but immediate withdrawal of antipsychotic drugs is essential, followed by supportive therapy and intensive monitoring of respiratory, renal, and cardiac function. Anticholinergic agents are often used, but when the temperature exceeds 101°F, anticholinergic drugs may exacerbate fever and other treatments might be preferred. It should be remembered that the simultaneous withdrawal of antipsychotic and anticholinergic drugs can exacerbate extrapyramidal features and that anticholinergic drugs should if possible be continued for one week after the withdrawal of the antipsychotic drug. Carbamazepine (203^c), amantadine (204^c), dantrolene sodium (205^c, 206^c), and bromocriptine (207^c) have been successfully used as empiric therapy in isolated cases. In our view, dopamine receptor agonists are preferred when the temperature exceeds 101–103°F, and muscle contraction can be further alleviated with dantrolene or benzodiazepines (208^c). Botulinum toxin was used for preventing muscle contractions in one case (209^c).

After resolution of symptoms, neuroleptic drugs can

be reintroduced safely in most patients (210^c). In all cases the lowest effective dose of neuroleptic should be used, along with anticholinergic therapy or thioridazine which has anticholinergic effects.

Other neurological effects. Myasthenia gravis caused by neuroleptic drugs has been reported (SED-11, 110). Such cases may be due to impairment of neuromuscular transmission induced by neuroleptic drugs.

Endocrine, metabolic. Weight gain is a common adverse effect of neuroleptic drugs (SED-13, 125; SEDA-19, 53; 211^c–213^c, 214^c, 215^c). The mechanism is poorly understood (SED-11, 111), although a serotonergic mechanism has been proposed (216^c). A meta-analysis of trials of antipsychotic drugs calculated the following mean weight gains in kg after 10 weeks of treatment: clozapine, 4.5; olanzapine, 4.2; thioridazine, 3.2; sertindole, 2.9; chlorpromazine, 2.6; risperidone, 2.1; haloperidol, 1.1; fluphenazine, 0.43; ziprasidone 0.04; molindone, -0.39; placebo, -0.74 (217^c, 218^c). In one study, excessive appetite was a more frequent adverse event in patients treated with olanzapine versus haloperidol (24 vs 12%) (219^c). Loss of weight has been observed after withdrawal of neuroleptic drugs (220^c).

Temperature regulation. Antipsychotic drugs interfere with the temperature regulatory function of the hypothalamus, and also peripherally with the sweating mechanism, resulting in poikilothermy. This can result in either hyperthermia or hypothermia, depending on environmental temperature. Clozapine often causes a benign and transient increase in body temperature early in treatment (221^c).

Diabetes mellitus. Several cases of de novo onset or exacerbation of existing diabetes mellitus in patients treated with antipsychotic drugs have been reported and were not significantly related to weight gain. These included eight cases in patients treated with clozapine (222^c, 223^c) and two cases in patients treated with olanzapine (223^c).

Neuroendocrine effects. Neuroendocrine effects of neuroleptic drugs include a rise in growth hormone, inappropriate ADH and prolactin secretion, and disturbances of sex hormones (SED-11, 111). Galactorrhea (SEDA-20, 43) and gynecomastia can follow the rise in prolactin. Risperidone-induced galactorrhea associated with a raised prolactin has been reported (224^c, 225^c). A correlation between serum concentrations of neuroleptic drugs and prolactin has been claimed (226^c, 227^c). However, no further rise in plasma prolactin concentration was observed with higher dosages of haloperidol (over 100 mg/day), which was explained as being related to saturation of the pituitary dopamine receptors by a modest amount of haloperidol (227^c). A low prolactin

concentration during maintenance neuroleptic drug treatment predicted relapse after withdrawal and it was suggested that serum prolactin concentration may be helpful in monitoring treatment (228^c). Hirsutism, amenorrhea, and a false-positive pregnancy test associated with neuroleptic treatment have also been reported (SED-11, 111; 229^c, 230^o).

There is concern that neuroleptic drugs may increase the risk of breast cancer because of raised prolactin concentrations. For a long time, findings did not confirm this association (231^c), but a recent Danish cohort study of 6152 patients showed a slight increase in the risk of breast cancer among schizophrenic women (232^c).

Sexual dysfunction Neuroleptic drug-induced sexual dysfunction, including erectile and ejaculatory dysfunction and changes in the quality of orgasm and in libido, appear to be benign and reversible on withdrawal. Priapism, although infrequent, necessitates prompt urological consultation and sometimes even surgical intervention (233^f, 234^k, 235^u). Although the mechanism involved in neuroleptic-induced male sexual dysfunction is not entirely understood, it may occur at several levels, including the cortex, hypothalamus, pituitary gland, and the gonads, e.g. gonadotrophins and testosterone. Another mechanism involves the sympathetic and parasympathetic nervous systems and may explain why thioridazine and other highly anticholinergic drugs are mainly responsible for male sexual dysfunction, including impotence and retrograde ejaculation (233^f, 236^f). A case of thioridazine-induced inhibition of female orgasm has also been reported (237^o). The first report of spontaneous ejaculation associated with the therapeutic use of antipsychotic drugs was described in 1983 (238^c). Prolonged erection has been reported with risperidone (239^o), and retrograde ejaculation has been associated with clozapine (240^o). One study showed a reduction in the strength of erection in schizophrenics, further accentuated in patients treated with neuroleptic drugs (SEDA-20, 44).

Mineral and fluid balance Water retention and edema occur very rarely during treatment with antipsychotic drugs. Water intoxication has been reported during treatment with thioridazine and may be due to its pronounced anticholinergic properties and/or direct stimulation of the hypothalamic thirst center (241^c).

Polyuria and polydipsia have long been associated with schizophrenia, and neuroleptic drugs appear to aggravate these symptoms, sometimes with an accompanying syndrome of inappropriate ADH secretion. Polydipsia and hyponatremia have been reported in patients treated with risperidone (242^o, 243^o), and olanzapine (244^o). Therefore, at present, care should

be taken when treating hyponatremic patients with neuroleptic drugs (245^c).

In one controlled study, 12 patients who were receiving various antipsychotic drugs had significantly increased urinary calcium and hydroxyproline concentrations and reduced urinary alkaline phosphatase compared with five controls (246^o). The possibility of a reduction in bone mineralization (247^o) may contribute to the increased risk of hip fracture associated with antipsychotic drug treatment in the elderly.

Hematological Rarely-reported hematological reactions to various antipsychotic drugs include agranulocytosis, thrombocytopenic purpura, hemolytic anemia, leukopenia, and eosinophilia. These are thought to represent allergic or hypersensitivity reactions, since they are apparently not dose related, although this has been questioned in one detailed case report of chlorpromazine-induced agranulocytosis (248^o). Neutropenia has been reported after acute accidental ingestion of about 1.53 g of chlorpromazine in a 5-year-old girl (249^o), implicating a direct toxic effect on the bone-marrow. The reported incidence of agranulocytosis is variable, ranging from 1 in 3000 to 1 in 250 000. Most cases are seen within the first 2 months after beginning treatment, but there have been a few reports in which this occurred only after many years. Frequent white cell counts are of limited value in monitoring, since counts fall rapidly and abruptly. Careful attention should be given to possible early warning signs, such as fever, sore throat, and adenopathy. Treatment requires immediate withdrawal and preventive measures against infection. Granulocyte colony-stimulating factor (G-CSF) has been used to treat antipsychotic drug-induced agranulocytosis (250^o).

Clozapine-induced agranulocytosis was originally determined to be 0.21% in a selected Finnish population (SED-9, 83), and the drug was withdrawn, only to be cautiously reintroduced in some countries a decade later, with hematological monitoring. With mandatory hematological monitoring by the Clozaril Patient Management System in the US, the cumulative incidence of agranulocytosis was 0.8% at 1 year, and 0.9% at 1.5 years of treatment, and the risk was not related to dosage (SEDA-18, 54; 251^k). In France, the incidences of agranulocytosis and neutropenia in clozapine-treated patients from December 1991 were 0.46 and 2.1% respectively (252^o). Because of the unusually high incidence of agranulocytosis in Finnish and Jewish patients (SEDA-20, 49), an ethnic risk factor for agranulocytosis has been suggested. Human leukocyte antigen (HLA) B38 phenotype was found in 83% of patients who developed agranulocytosis and in 20% of clozapine-treated patients who did not develop agranulocytosis (253^c). Gene products contained in the haplotype may thus

be involved in mediating drug toxicity. Eosinophilia associated with clozapine treatment has been reported in 13% of treated patients in a study in Australia (23^{CR}).

Although hemotoxicity was not observed during pre-marketing studies of olanzapine (254^{CR}), six cases of hematological reactions, including leukopenia, granulocytopenia, and neutropenia, have been reported in Canada since approval of the drug in 1996 (255^C). Agranulocytosis, leukopenia, neutropenia, lymphopenia, and thrombocytopenia have been reported in patients treated with risperidone (258^C-259^C).

Liver Hepatotoxicity associated with chlorpromazine was noted soon after its introduction, but is considered to be rare today. Occasional reports of cholestatic jaundice with thioxanthenes and haloperidol have also been published (SED-9, 83; 260^C). Jaundice generally occurs within 24 weeks after the drug is started and has many characteristics of an allergic reaction (it is not dose-related and is accompanied by fever, rashes, and eosinophilia), although a direct toxic mechanism has also been implicated. Symptoms generally subside rapidly after withdrawal, but cholestasis may be prolonged. Hepatotoxicity may be as frequent with piperidine and piperazine phenothiazines as with chlorpromazine, despite previous suggestions that the toxicity of these compounds is less. There is evidence of a significant hepatotoxic effect of the phenothiazines and in persons under age 50, but not over 50 (261^{CR}). Several cases of hepatotoxicity have been reported in patients treated with risperidone (262^C), and one case of fatal liver failure has been reported with clozapine (263^{CR}).

More common are minor abnormalities in liver function tests with various antipsychotic drugs, and these appear to be dose-related. Transient asymptomatic liver enzyme rises are common with clozapine (264^C).

Gastrointestinal Dry mouth is a commonly reported autonomic adverse effect of antipsychotic drugs and is seen more often with drugs that have prominent anticholinergic properties, such as thioridazine and chlorpromazine. Dry mouth is mainly a nuisance, but its persistence may promote dental caries, oral moniliasis, and infective parotitis. When feasible, once-daily administration of antipsychotic drugs at bedtime helps to alleviate the problem of dry mouth. One should also avoid concurrent administration of other drugs with anticholinergic effects. Sugarless gum or candy and frequent sips of water and/or ice chips, may help alleviate a dry mouth.

In contrast, clozapine, a potent muscarinic, can cause nocturnal hypersalivation (265^C), which has been esti-

mated to occur in 10% (SEDA-20, 49) to 23% (SEDA-20, 49) of patients. Salivary gland swelling has been reported in patients treated with clozapine (SEDA-20, 49; 266^C).

Constipation is common with the highly anticholinergic antipsychotic drugs, but is easily remedied with laxatives. Nevertheless, the possibility of fatal intestinal dilatation, although very rare, warrants careful evaluation of persistent complaints of constipation, particularly when vomiting, abdominal pain, distension, or tenderness are present (267^{CR}). By promoting intestinal stasis, antipsychotic drugs may very rarely cause increased intra-abdominal pressure and disrupt the vascular supply to the gut, leading to necrotizing enterocolitis (SED-11, 112). Acute colitis is a rare gastrointestinal effect of antipsychotic drugs (268^C). Reflux esophagitis has been reported in clozapine-treated patients (269^C).

Urinary system Urinary retention, incontinence or dysuria can occasionally occur with antipsychotic drugs that have marked anticholinergic effects. Enuresis has been rarely associated with clozapine (0.23% of patients) (SEDA-19, 54; 270^C), and has been successfully treated with benztropine in patients taking a variety of psychotropic medications (271^C).

Retroperitoneal fibrosis has been attributed to haloperidol; since this condition affects the kidney, it should be differentiated from other causes of obstructive uropathy (272^C).

Hemorrhagic cystitis has been associated with risperidone (273^C).

Skin and appendages Many cutaneous reactions have been reported with antipsychotic drugs, including urticaria, abscesses after intramuscular injection, rashes, photosensitivity or exaggerated sunburn, contact dermatitis, and melanosis or blue-gray skin discoloration. Skin rashes are usually benign. Chlorpromazine is most often implicated (incidence 5-10%). Cutaneous lesions consisting of telangiectatic macules have been reported with thiothixene (274^C). Non-phenothiazines, such as haloperidol and loxitan, cause fewer urticarial reactions. As with any other class of drug, patients may be allergic to excipients in various tablet or capsule forms, or to preservatives, e.g. methylparaben, in liquid dosage forms (275^{CR}).

Chlorpromazine most often causes photosensitivity reactions (incidence around 3%), which may result from formation of a cytotoxic by-product after exposure to ultraviolet light. Risperidone-induced photosensitivity has also been reported (276^C). Patients can be advised to avoid prolonged exposure to strong indoor light, as well as to wear protective clothing and to use a combination of para-aminobenzoic acid and benzo-

phenone sunscreen when exposure to strong sunlight is unavoidable.

Toxic epidermal necrolysis, not previously known to be related to neuroleptic drugs, has been reported in association with chlorpromazine (277).

Potentially serious skin reactions are best treated by withdrawing the offending agent and switching to a structurally unrelated antipsychotic drug. When the offending agent is a phenothiazine, non-phenothiazines, such as haloperidol or molidone, may be preferable to the more closely related thioxanthenes.

Skin discoloration is more common in women and generally occurs on the exposed parts of the body. This reaction may be caused by deposition of melanin-drug complexes. It was commonly seen in the decade after the introduction of the phenothiazines, but rarely today (275).

Complications at the site of injection of depot neuroleptic drugs, including pain, bleeding or hematoma, leakage of drug from the injection site, acute inflammatory induration, and transient nodules, have been reported (SEDA-20, 43).

Schorrhic dermatitis has been observed in patients receiving long-term antipsychotic drugs (SEDA-17, 57), and this adverse effect appears to be highly associated with drug-induced parkinsonism.

More serious types of skin reactions are rare, but angio-edema, non-thrombocytopenic purpura, exfoliative dermatitis, and Stevens-Johnson syndrome have been reported.

Special senses Various antipsychotic drugs, particularly low-dose phenothiazines and thioxanthenes, commonly cause blurred vision secondary to their anticholinergic activity. This is primarily a nuisance, except in the rare patient with closed-angle glaucoma.

Of more concern are two distinct types of adverse effects in the eye, which may be produced by various antipsychotic drugs; lenticular and corneal deposits and pigmentary retinopathy. Deposits in the lens or cornea probably result from melanin-drug complex deposition and are best detected by slit-lamp examination. These deposits are probably dose- and time-related, since they generally occur only after years of treatment. Fortunately, they are in large part benign and reversible, but if undetected they may progress to interfere with vision. They are most often reported with chlorpromazine or thioridazine and can occur in association with pigmentary changes in the skin. Non-phenothiazines appear to have minimal propensity to cause oculo-cutaneous reactions and may be preferred when these problems have occurred during treatment with phenothiazines (SED-11, 113), although the patient should still be closely monitored.

Pigmentary retinopathy, which can seriously impair vision, is specifically associated with thioridazine, and has occurred more often with high and prolonged dosage (e.g. 1200–1800 mg/day for weeks to months) (279), although in one case the daily dose was only 700 mg (SED-11, 113). Large-scale surveys have confirmed the relative safety of dosages up to 800 mg/day (38); at any dosage, however, any complaint of brownish discoloration of vision or impaired dark adaptation requires immediate evaluation.

Various rarer ocular effects have been reported, including oculomotor palsies, transient myopia, optic atrophy, blue-green blindness, and night-blindness. For a long time it has been suspected that neuroleptic drugs may increase the risk of cataract (280^R).

Musculoskeletal Clozapine-induced myokymia has been reported (281^R).

Immunological and hypersensitivity reactions Rare disorders of connective tissue resembling systemic lupus erythematosus have been reported with chlorpromazine, perphenazine, and chlorprothixene (282^R).

Miscellaneous Epistaxis has been reported in three patients with hypertension receiving thioridazine (283^R).

Risk factors The contraindications to neuroleptic drug therapy include coma, the presence or withdrawal of high doses of other CNS depressants (alcohol, barbiturates, narcotics, etc), serious hematological conditions (e.g. bone-marrow suppression), and a previous history of hypersensitivity reactions, e.g. jaundice or severe photosensitivity. Since neuroleptic drugs cause sedation, they may impair mental or physical abilities (including reaction times), especially during the first few days of therapy.

Neuroleptic drugs have been prescribed for children in the treatment of psychotic disorders, Tourette's syndrome, attention deficit disorder, hyperactivity, behavioral and psychiatric complications of mental retardation, and pervasive developmental disorders, e.g. infantile autism (284^R, 285^R). Adverse effects of neuroleptic drugs in children may be unpredictable and a suggestion that they could be a cause of sudden infant death remains a hypothesis (286^R). Significant weight gain has been reported in almost 100% of neuroleptic-treated children, and there seems to be a relatively high incidence of extrapyramidal adverse effects (287^R). Since there is little information regarding the pharmacokinetics and pharmacodynamics of neuroleptic drugs in children, careful supervision of treatment is vital; the use of high-dosages is inadvisable.

Similar principles apply when treating elderly people, primarily because there is wide individual variation in the extent to which older people tolerate these drugs.

Adverse effects, such as postural hypotension and anticholinergic effects, can be more problematic in the elderly (288^c). Antipsychotic drugs have often been associated with increased rates of falls (SEDA-19, 40; 289^c). Caution with neuroleptic use in old people is further warranted because several of these drugs are metabolized by CYP2D6, which is inhibited by many commonly used drugs (SEDA-20, 44).

Withdrawal effects Various somatic complaints have been reported in patients in whom neuroleptic drugs are abruptly withdrawn (SEDA-20, 44). The incidence of these complaints varies widely in different reports, from 0 to 75%. Common complaints include headache, vomiting, nausea, diarrhea, insomnia, abdominal pain, rhinorrhea, and muscle aches. On rare occasions, the symptoms resemble those of benzodiazepine withdrawal (appetite change, dizziness, tremulousness, numbness, nightmares, a bad taste in the mouth, fever, sweating, vertigo, tachycardia, and anxiety), but it is possible that in some of the reported cases there was actually benzodiazepine withdrawal. Some of these symptoms may also have been linked to the simultaneous withdrawal of anticholinergic drugs (SED-11, 113; 290^c). Parkinsonism, not explained by withdrawal of anticholinergic drugs, has also been reported as an unusual withdrawal effect of neuroleptic drugs (291^c).

Worsening of psychotic symptoms and/or dyskinetic movements may be seen when dosages are lowered or the neuroleptic drug is withdrawn. A functional increase in mesolimbic and striatal dopaminergic sensitivity has been suggested as an explanation (292^b). Psychotic relapse is rarely seen in the first 2 weeks after withdrawal, but physical withdrawal symptoms generally begin within 48 hours of the last dose (SEDA-14, 54). Rebound psychosis or delirium or both have been reported with withdrawal of clozapine (293^c, 294^c).

Abrupt clozapine withdrawal, or even dosage reduction, can result in psychosis and/or delirium (295^c–297^c). Clozapine withdrawal has also been associated with nausea, vomiting, diarrhea, headache, restlessness, agitation, and sweating (8^c, 298^c), which occur as the result of cholinergic rebound and which may respond to anticholinergic drugs (299^c). The appearance of delirium and the return of dyskinetic movements can take place within days after clozapine withdrawal.

Withdrawal emergent syndrome has been described in children (286^c, 287^c) and consists of nausea, vomiting, ataxia, and choreiform dyskinesia primarily affecting the extremities, trunk, and head after sudden withdrawal of neuroleptic drugs (300^c). In one study, there

were withdrawal symptoms in 51% of children, twice as many being affected by the withdrawal of low-dose, high-potency compounds compared with other drugs. Symptoms usually appear within a few days to 2 weeks after drug withdrawal; spontaneous remission is likely within the next 8–12 weeks. The syndrome is still not well understood.

Tumor-inducing effects Concern that neuroleptic drugs may increase the risk of breast cancer because of raised prolactin concentrations is discussed under Endocrine, metabolic.

Use in pregnancy There have been recent reviews of neuroleptic drug use during pregnancy (301^a–303^b). All antipsychotic agents cross the placenta and reach the fetus in potentially significant amounts. However, most large-scale controlled studies have shown that these agents can be used safely during pregnancy (38^b). Nevertheless, there have been isolated case-reports of malformations (SED-11, 114). Several instances of limb reduction after the use of haloperidol during pregnancy suggest that it would be prudent not to use this drug during the first trimester, the period of limb development (304^c). There is also reason to argue that prenatally administered drugs of this class influence the offspring after the drug has been eliminated, and can produce behavioral teratogenicity; since neurotransmitter systems continue to develop long after birth, such drugs might influence behavior in an adverse way over a very long time (305^a). In general, the best recommendation is to avoid any drug during the first trimester and only to use drugs thereafter if the benefits to the mother and fetus outweigh any possibility of risk. Should an antipsychotic drug be required during pregnancy, one would prefer to use an agent such as chlorpromazine or trifluoperazine, as there is considerably more worldwide experience with these drugs than with newer antipsychotic drugs (38^b). However, clozapine caused no serious complications or developmental abnormalities during pregnancy in two cases (306^c).

A variety of pharmacological effects can occur in the infant after birth, particularly when the mother has received these agents in the weeks before delivery. These include postnatal depression and acute dystonic reactions (which may interfere with normal delivery). Hypotonia may persist for months (307^c) and may respond to diphenhydramine, 5 mg/kg/day. Severe rhinorrhea and respiratory distress in a neonate exposed to fluphenazine hydrochloride prenatally has been reported (308^c). Neonatal jaundice, hyperbilirubinemia, and melanin deposits in the eyes may be seen when

Neuroleptic and antipsychotic drugs Chapter 6

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antipsychotic drugs have been given during the last trimester or longer during pregnancy

Use in lactation Neuroleptic drugs appear in breast milk in very low concentrations, related to maternal dosage. Typical regimens of antipsychotic drugs yield low or negligible concentrations (38^R, 309^C). In a recent study, breast-fed infants ingested up to 3% of the maternal daily dose, and small amounts of the drugs were detected in their plasma and urine. In addition, three breast-fed infants had a fall in developmental scores from the first to the second assessment at 12-18 months (310^C). Until these issues are further clarified, it would be best to avoid breast-feeding by mothers who are receiving antipsychotic drugs.

Effects on fertility The effects of antipsychotic drugs on fertility are not well known; present data are controversial, often being based on animal studies, e.g. reduction in male rat copulation by chlorpromazine. However, oligospermia, polyspermia, necrospermia, and reduced sperm motility have been reported with various phenothiazines and butyrophenones; these are likely to improve after withdrawal (311^R).

Overdosage Antipsychotic drugs are often ingested in accidental overdosage or suicide attempts, but mortality is generally low and infrequently associated with residual impairment. However, important exceptions occur with concomitant ingestion with alcohol, tricyclic antidepressants, or antiparkinsonian agents. In acute overdosage of antipsychotic drugs alone, the most serious complications include shock, seizures, and cardiac dysrhythmias. These can be more problematic when the antipsychotic drugs are of low potency, e.g. thioridazine and chlorpromazine, but taken in high dosages. However, a review of acute loxapine overdosage also suggests a high potential for serious neurological problems and cardiotoxicity with this high-potency drug (312^C). In 31 cases of risperidone overdose (16 involving multiple drugs), the major effects were lethargy, tachycardia, and hypotension, with one death in a patient who had also taken imipramine (313^{CR}). Fatal overdoses in which novel antipsychotic drugs were the sole ingestant have been reported with clozapine (314^C), olanzapine (315^C), and risperidone (316^C). In one case of olanzapine overdose the patient had ingested as much as 600 mg (317^C). Acute extrapyramidal reactions occur more often after ingestion of high-potency drugs, such as haloperidol and fluphenazine; these respond to parenteral benzatropine, but anticholinergic drugs should be used judiciously, so as not to worsen peripheral or central autonomic toxicity. Other serious, but

less frequent, complications include paralytic ileus and hypothermia. Acute renal failure has been very rarely reported, but is apparently reversible and may occur secondary to severe hypotension or other causes after acute ingestion (318^C).

Interactions Adrenolytics Antipsychotic drugs may intensify the effects of α -adrenoceptor antagonists, e.g. phentolamine, causing severe hypotension (287^C).

Alcohol Alcohol-induced CNS and respiratory depression is enhanced by antipsychotic drugs (319^C), but enhancement may be slight if both are used in reasonable amounts (320^R). Haloperidol (but not chlorpromazine) increased blood alcohol concentrations (321^C).

Antacids Antacids containing aluminium and magnesium reduce the gastrointestinal absorption of chlorpromazine and other phenothiazines by forming complexes (322^C). The clinical significance of this is unknown.

Anticoagulants Concurrent administration with phenothiazines may cause an increased hypoprothrombemic effect, presumably due to enzyme competition. However, haloperidol has been reported to lower anticoagulant effectiveness through enzyme induction (323^C).

Antidepressants Various antipsychotic drugs inhibit the metabolism of imipramine, nortriptyline, and amitriptyline (SED-11, 114; 324). In one study, patients taking amitriptyline or nortriptyline in combination with perphenazine had up to 70% higher antidepressant concentrations than patients taking antidepressants alone (325^C). Fluvoxamine increases clozapine plasma concentrations (326^C, 327^C). One fatal interaction due to clozapine toxicity has been reported with co-ingestion of fluoxetine (328^C). The mechanism is presumed to be related to inhibition of clozapine metabolism by fluoxetine. Monitoring the clinical response is recommended for patients in whom fluoxetine has been added to a stable regimen of clozapine (326^C).

Antihypertensive drugs Antipsychotic drugs may enhance the hypotensive action of antihypertensive drugs, owing to their ability to produce α -adrenoceptor blockade. However, phenothiazines may inhibit the hypotensive action of guanethidine (320^R). This antagonism does not occur with molindone (323^C). Combined use of antipsychotic drugs and thiazide diuretics has rarely resulted in severe hypotension, and diuretic-induced hypokalemia can potentiate thioridazine-induced cardiotoxicity (323^C). Phenothiazines reduce hepatic metabolism and thereby increase plasma concentrations of propranolol (323^C). In addition, in one report, a schizophrenic patient experienced delirium, tonic-clonic

seizures, and photosensitivity after addition of propranolol to chlorpromazine, suggesting that neuroleptic drug concentrations are increased by propranolol (329^c). The cardiac effects of neuroleptic drugs can be potentiated by propranolol (330^c). Although high dosages of propranolol (up to 2 g) have been used in combination with chlorpromazine to treat schizophrenia, the combination of propranolol or pindolol with thioridazine or chlorpromazine should be avoided if possible (331^a). In general, concurrent use of antipsychotic and antihypertensive drugs merits close patient monitoring (331^a).

Benzodiazepines Caution has been recommended when starting clozapine in patients taking benzodiazepines (SEDA-19, 55). Three cases of delirium associated with clozapine and benzodiazepines (332^c) have been reported. There have been several reports of synergistic reactions, resulting in increased sedation and ataxia, when lorazepam was begun in patients already taking clozapine (333^c).

Bromocriptine The dopamine-blocking activity of antipsychotic drugs may antagonize the effects of bromocriptine. Conversely, bromocriptine has been reported to cause exacerbation of schizophrenic symptoms (334^c).

Caffeine Excess caffeine can stimulate the CNS, which can worsen psychosis and thus interfere with the results of neuroleptic drug treatment (335^a). Neuroleptic drugs may precipitate from solution when mixed with coffee or tea (336^c), but the clinical significance of this interaction is unknown (337^c).

Carbamazepine Plasma concentrations of neuroleptic drugs can be lowered by carbamazepine, and patients should be monitored for reduced antipsychotic clinical efficacy (338^c).

Corticosteroids By reducing gastrointestinal motility, antipsychotic drugs enhance the absorption of corticosteroids (319^f).

Digoxin By reducing gastrointestinal motility, antipsychotic drugs increase the systemic availability of digoxin and other inotropic drugs and thereby increase the potential for toxicity (320^a).

Erythromycin One case of increased clozapine serum concentrations has been reported with erythromycin (339^c).

Hypoglycemic drugs Because phenothiazines affect carbohydrate metabolism, they may interfere with control of blood glucose in diabetes mellitus (222^a, 319^f).

Levodopa Levodopa and antipsychotic drugs may interfere with the effects of each other; the patient should be monitored for deterioration in both parkinsonism and mental state.

Lithium Neurotoxicity has been reported in around

20 patients taking lithium and haloperidol; several cases of lithium-thioridazine neurotoxicity have also been reported. The cause of this interaction has not been resolved, but lithium seems compatible with all antipsychotic drugs, although patients should be carefully monitored (340^a-342^a). Persistent dysarthria with apraxia has been reported with a combination of lithium carbonate and haloperidol (343^c).

Methyldopa Dementia occurred when methyldopa was combined with haloperidol (344^c).

Monoamine oxidase inhibitors There may be additive hypotensive effects when these drugs are combined with antipsychotic drugs.

Narcotic analgesics CNS and respiratory depression due to narcotic analgesics can be enhanced by antipsychotic drugs (319^f).

Oral contraceptives Estrogen-containing formulations may further promote neuroleptic drug-induced prolactin stimulation (319^f).

Phenytoin Antipsychotic drugs can reduce phenytoin concentrations by inducing liver enzymes (345^c), but occasionally serum concentrations are increased (346^c). Phenytoin may also reduce antipsychotic drug concentrations (347^c). An interaction between risperidone and phenytoin resulted in extrapyramidal symptoms (348^c).

Propranolol See under Antihypertensives.

Quinidine Concurrent administration with antipsychotic drugs, particularly thioridazine, can cause myocardial depression (323^c).

Sedatives and hypnotics Neuroleptic drugs increase barbiturate and sedative-hypnotic sleep time and respiratory depression. Lower dosages of barbiturates or other hypnotics may be indicated in patients receiving antipsychotic drugs (323^c).

Smoking Smoking, common in schizophrenics (SEDA-20, 44), has important effects on plasma concentrations of neuroleptic drugs. Chlorpromazine concentrations were reduced by 36% in smokers (349^c), and in an analysis of a number of factors that potentially influence chlorpromazine concentrations, smoking may be second in importance only to dosage (350^c).

Sympathomimetic drugs Antipsychotic drugs may reduce or block the pressor effects of α -adrenoreceptor agonists. When using sympathomimetic drugs with both α and β activity, antipsychotic blockade of α -adrenoreceptors may lead to unopposed β predominance, resulting in severe hypotension (323^c). Levarterenol or phenylephrine may be safer to use in patients receiving chlorpromazine or other antipsychotic drugs (320^a).

Interference with diagnostic routines Alterations in

various laboratory values may be the result of pharmacological actions, such as raised blood glucose or reduced serum urate (2–3 days delay). One must also keep in mind alterations that indicate end-organ toxicity, including raised serum transaminases, alkaline phosphatase, or bilirubin (due to hepatic necrosis, hypersensitivity, or jaundice), or increased prothrombin time or serum cholesterol (by cholestasis, hepatic toxicity).

Methodological interference has been reported be-

tween chlorpromazine and various laboratory tests, resulting in overestimation of cholesterol (Zlatkis-Zak reaction), false findings of increased CSF protein (Folin-Ciocalteu method), or reduced haptoglobin concentrations (351^R). Phenothiazines can also cause a false-positive pregnancy test (but only when using the virtually obsolete Aschcim-Zondek animal test method) or increased urinary ketones (ferric chloride test), urinary steroids (colorimetry), or oxosteroids (Porter-Silber test) (SED-11, 115).

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Doe v. Hunter

**JOHN DOE ET AL.* v. DAVID E. K. HUNTER,
SUPERINTENDENT, CEDARCREST
REGIONAL HOSPITAL ET AL.**

Superior Court Judicial District of File No. 705-1925
Hartford-New Britain at Hartford

Injunction; guardian and ward; conservators; hospitals; drugs; insanity and persons non compos mentis; action by plaintiff ward to enjoin defendants' forcible administration of psychotropic drugs to plaintiff for treatment of mental illness; whether written consent of statutorily (§ 16a-650) appointed conservator was sufficient authority for defendant hospital to administer psychotropic drugs to plaintiff ward over his objection under statute (§ 17a-514 (h)) concerning performance of "medical or surgical procedures" upon ward with conservator's written consent; whether, for patient objecting to mental illness medication, Public Act (03-269) required independent determination by Probate Court of patient's ability to give informed consent to medication; whether plaintiff's right to be free of unwanted psychotropic medication survived appointment of conservator of the person.

Memorandum filed January 31, 1995

Memorandum of decision in action for injunction.
Judgment for plaintiffs.

Connecticut Legal Rights Project, Inc., for the plaintiffs.

Thomas J. Ring, assistant attorney general, and *Richard Blumenthal*, attorney general, for the defendants.

Maria Arunjo-Kahn, office of protection and advocacy, filed an appearance for the purpose of filing a brief of amicus curiae in support of the plaintiffs' motions for preliminary and permanent injunctions.

WAGNER, J. This is an action to enjoin the superintendent and other staff employees of Cedarcrest Regional Hospital (Cedarcrest) from administering medication to the plaintiff, over his objection, for the treatment of mental illness, in nonemergency situations.

* This entitled owing to the sensitive nature of this case.
Reporter of Judicial Decisions

the co-defendants were in violation, the plaintiff's stated statutory and constitutional rights.

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The parties have filed a stipulation of facts, from which the following summary is drawn.

Since December 6, 1993, the plaintiff has been hospitalized at Cedarcrest, a facility for the treatment of mental illness, operated by the state department of mental health (department). The defendants, employees of the department, have administered long acting psychotropic medication to the plaintiff on at least three nonemergency occasions over his objection, with the consent of the plaintiff's conservator of the person. The plaintiff's conservator was appointed by the Hartford Probate Court on July 29, 1989, under what is now General Statutes § 45a-650, in an order that states that the plaintiff "is incapable of caring for himself . . . by reason of physical and mental disabilities." The written consent of the conservator indicated that he had met with the plaintiff, the plaintiff's physician and other members of the treatment team, reviewed the plaintiff's written record and considered the risks and benefits of the medication. It indicated further that the conservator was informed of the likelihood and seriousness of adverse side effects and had considered the plaintiff's preferences, religious views and prognosis with or without the medication.

The plaintiff claims that under the provisions of Public Acts 1993, No. 93-309, which became effective on October 1, 1993, he may not forcibly be medicated in nonemergency situations without a hearing in the Probate Court to determine his competence to give informed consent to treatment with such drugs. He argues that in issuing the 1989 order, the Probate Court appointing his conservator did not sufficiently consider his competence to give such consent. The defendants argue that this law does not require the Probate Court to pass on the specific issue of the plaintiff's capacity

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to give or to withhold informed consent to such medica-
tion, and that they have conformed to the requirements
of the statute.

Public Acts No. 1993, No. 93-369, consists of four
sections amending General Statutes §§ 17a-543, 17a-
540, 17a-541 and 17a-542 sequentially. The amendments
to § 17a-543 are the most pertinent to the present case
and are set forth in nine subsections.

Subsection (a) of § 17a-543 provides that "[n]o patient
shall receive medication for the treatment of the mental
illness of such patient without the informed consent of
such patient, except in accordance with procedures set
forth in subsections (b), (d), (e) and (f)"

Subsection (h) of § 17a-543 provides that "[n]o medi-
cal or surgical procedures may be performed without
the patient's written informed consent" or the written
consent of a conservator appointed under § 45a-650,
except in certain emergency situations.

Subsection (d) of § 17a-543 provides for the establish-
ment of an internal procedure by a mental health facility
for the involuntary medication of inpatients in situa-
tions where the "condition of the patient will rapidly
deteriorate," such medication being limited to a period
not exceeding thirty days.

Subsection (e) of § 17a-543 provides: "If it is deter-
mined by the head of the hospital and two qualified
physicians that a patient is incapable of giving informed
consent to medication for the treatment of such
patient's mental illness and such medication is deemed
to be necessary for such patient's treatment, a facility
may utilize the procedures established in subsection
(d) of this section and may apply to the court of probate
for appointment of a conservator of the person under
section 45a-650. The conservator shall meet with the
patient and the physician, review the patient's written

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record and consider the risks and benefits from the medication, the likelihood and seriousness of adverse side effects, the preferences of the patient, the patient's religious views, and the prognosis with and without medication. After consideration of such information, the conservator shall either consent to the patient receiving medication for the treatment of the patient's mental illness or refuse to consent to the patient receiving such medication."

It has been argued that the consent of the conservator in the present case is sufficient authority for the hospital to administer psychotropic drugs to the plaintiff over his objection, since § 17a-543 (a) specifically lists § 17a-543 (b) as an exception and § 17a-543 (b) on its face provides that "medical or surgical procedures" may be performed with the written consent of a conservator who has been appointed under § 45a-650.

This argument must be rejected for the following three reasons. First, § 17a-543 (b) refers to "medical or surgical procedures" only. This term falls short and does not include "medication for the treatment of a mental illness." The phrase used in both subsections (a) and (b) of § 17a-543 prior to its amendment by Public Acts 1993, No. 93-369, was "medication and treatment," which is a much broader term than "medical or surgical procedures," but the former phrase was not retained in Public Acts 1993, No. 93-369. This would indicate a legislative intent not to include the medication for the treatment of mental illness within the term "medical or surgical procedures."

Second, the exceptions listed in subsection (a) of § 17a-543 and set forth in subsections (b), (d), (e) and (f) of that statute are in the conjunctive and not in the disjunctive. Subsection (a) of § 17a-543 cannot be operative with reference to § 17a-543 (b) alone, but must be interpreted together with the other subsections

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of § 17a-543 particularly (d) and (e). If § 17a-543 provides for a procedure for the appointment of a conservator under § 45a-650, and, thereafter, that conservator is required to meet the several conditions set forth in that subsection before he can validly consent to the administration to his ward of medication for mental illness, it would make no sense to permit a single consent under subsection (b) of § 17a-543. If this were sufficient, all of subsection (e) of § 17a-543 would be meaningless and have no effect.

Third, if the procedure outlined in § 17a-543 (e) is mandatory on any conservator, it is obvious that in the procedure of applying for a conservator by a facility, either after, or without going through the procedure of § 17a-543 (d), the ward would have an opportunity to be heard in the Probate Court on the specific question of whether he is able to give informed consent. Indeed, in a situation where the Probate Court were to find that a ward was incapable of giving informed consent, the court's order appointing the conservator might sensibly include a direct reference to the power of the conservator to give such consent.

Public Acts 1993, No. 93-369, does not explicitly address the question at issue in the present case; namely, whether a person whose conservator has given consent is entitled to a further proceeding in the Probate Court to address the issue of that person's competence to give consent to the administration of psychotropic medication for the treatment of mental illness. The language of the entire public act, however, clearly establishes the right of a person to give or to withhold his informed consent with respect to such treatment.

Public Acts 1993, No. 93-369, provides: "No patient shall receive medication for the treatment of the mental illness of such patient without the informed consent of such patient" Public Acts 1993, No. 93-369, § 3

provides in relevant part: "No patient . . . shall be deprived of any personal, property or civil rights . . . unless he has been declared incompetent pursuant to sections 45a-644 to 45a-662, inclusive. *Any finding of incompetency shall specifically state which civil or personal rights the patient is incompetent to exercise.*" (Emphasis added.)

Recent United States Supreme Court cases have indicated that a strong due process safeguard surrounds the right not to have one's body invaded by unwanted administration of psychotropic medication in the absence of a finding of overriding justification and medical appropriateness. *Riggins v. Nevada*, 504 U.S. 127, 135-36, 112 S. Ct. 1810, 118 L. Ed. 2d 479 (1992); *Washington v. Harper*, 494 U.S. 210, 222-23, 110 S. Ct. 1023, 108 L. Ed. 2d 178 (1990).

The legislative history behind Public Acts 1993, No. 93-369, demonstrates a clear intention to bring due process protection against involuntary psychotropic medication to mental patients in the light of these Supreme Court decisions. As Kenneth Marcus, the deputy commissioner of the state department of mental health, indicated: "Current law . . . provides that a person who has been involuntarily committed can be medicated against his/her will. The United States Supreme Court . . . has ruled that such statutes which unilaterally allow a state to medicate a person against his/her will are unconstitutional. H.B. 7288 . . . brings Connecticut law into compliance with U.S. Supreme Court rulings (*Washington v. Harper* and *Riggins v. Nevada*) on involuntary medication and it provides due process protections for patients . . ." Conn. Joint Standing Committee Hearings, Judiciary, Pt. D, 1993 Sess., p. 3018.

For the aforementioned reasons, the court concludes that Public Acts 1993, No. 93-369, permits a patient objecting to medication for a mental illness to have a



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determination by the Probate Court of his ability to give informed consent in a procedure not instituted under § 17a-543.

The defendants are therefore restrained from medicating the plaintiff until he consents or has had a duly noticed hearing in the Probate Court resulting in a finding that he is unable to give informed consent to medications for mental illness and that his conservator has submitted a writing that indicates he has followed the procedures set forth in the new subsection (e) of § 17a-543, listing the steps taken, and stating that after consideration of the information received, the conservator consents to the plaintiff receiving such medication.

Nothing in this restraining order should be interpreted to interfere with the right of the defendants to administer medications in emergency situations under § 17a-543 (b) or in rapidly deteriorating situations under § 17a-543 (d) or in direct threat of harm situations under § 17a-543 (f).

WILLIAM J. LOUKA ET AL., COADMINISTRATORS
(ESTATE OF CHEYENNE I. LOUKA) ET AL. v.
AETNA CASUALTY AND SURETY
COMPANY ET AL.³

Superior Court Judicial District of File No. 03058
Middlesex at Middletown

Insurance' action to recover additional benefits due plaintiffs under un-
sured underinsured motorist provisions of their automobile liability pol-
icy with named defendant and with defendant underinsurer of defendant
driver, whether, for purposes of recovery under policies issued by
defendants, plaintiffs' decedent, passenger in automobile by defendant
underinsurer's insured, was injured person and whether vehicle she
occupied was uninsured automobile; whether defendant underinsurer
was to be afforded a per accident credit for all moneys it paid to others
injured in same accident with plaintiff, whether named defendant, as

³ Affirmed 39 Conn. App. 711, 837 A.2d 78 (1995)



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remanded to the custody of the commissioner of men-
tal health was entitled to the same procedural protec-
tions, when the state petitioned for an extension of his
term of commitment, as any other individual facing civil
commitment proceedings. Accordingly, because the
government must demonstrate by clear and convinc-
ing evidence that an individual is mentally ill and dan-
gerous in order to prevail in civil commitment
proceedings, we concluded that the government must
bear the same burden of proof when it seeks to retain
custody of an acquttee beyond his current period of
commitment. "Although these procedural protections
are directed to persons who are civilly committed, they
apply as well, under federal equal protection law, to
a state's initiation of involuntary commitment proceed-
ings for certain persons involved in the criminal jus-
tice system, such as . . . criminal defendants found
not competent to stand trial. *Jackson v. Indiana*, 406
U.S. 715, 724, 92 S. Ct. 1845, 82 L. Ed. 2d 435 (1972)."
Id., 413. Because our provisions for civil commitment;
see General Statutes § 17a-498 (c);²⁸ and for conser-

²⁸ General Statutes § 17a-498 (c) provides: "The court shall require the
sworn certificates of at least two impartial physicians selected by the court,
one of whom shall be a practicing psychiatrist, both of whom shall be licensed
to practice medicine in the state of Connecticut and to have been practi-
tioners of medicine at least one year and not connected with the hospital
for mental illness to which the application is being made, nor related by
blood or marriage to the applicant, nor to the respondent. Such certificates
shall indicate that they have personally examined such person within ten
days of such hearing. The court shall appoint such physicians from a panel
of physicians and psychiatrists provided by the commissioner of mental
health and such appointments shall be made in accordance with regulations
to be promulgated by the probate court administrator in accordance with
section 45a-77. Each such physician shall make his report on a separate
form provided for that purpose by the department of mental health and
shall answer such questions as may be set forth on such form as fully and
completely as reasonably possible. Such form shall include, but not be limited
to questions relating to the specific mental illness alleged, whether or not
the respondent is dangerous to himself or herself or others, whether or
not such illness has resulted or will result in serious disruption of the respon-
dent's mental and behavioral functioning, whether or not hospital treat-

vatorship proceedings, which govern the appointment of a conservator of the person for an individual incapable of caring for himself or herself; see General Statutes § 45a-650 (c);³⁴ require proof by clear and convincing evidence, we are convinced that the state ought to shoulder this burden of proof when it seeks to medicate a defendant involuntarily in order to ren-

ment is both necessary and available, whether or not less restrictive placement is recommended and available and whether or not respondent is incapable of understanding the need to accept the recommended treatment on a voluntary basis. Any such physician shall state upon the form the reasons for his or her opinion. Such respondent or his or her counsel shall have the right to present evidence and cross-examine witnesses who testify at any hearing on the application. If such respondent notifies the court not less than three days before the hearing that he or she wishes to cross-examine the examining physicians, the court shall order such physicians to appear. The court shall cause a recording of the testimony of such hearing to be made, to be transcribed only in the event of an appeal from the decree rendered hereunder. A copy of such transcript shall be furnished without charge to any appellant whom the court or probate finds unable to pay for the same. The cost of such transcript shall be paid from funds appropriated to the judicial department. If, on such hearing, the court finds by clear and convincing evidence that the person complained of is mentally ill and dangerous to himself or herself or others or gravely disabled, it shall make an order for his or her commitment, considering whether or not a less restrictive placement is available, to a hospital for mental illness to be named in such order, there to be confined for the period of the duration of such mental illness or until he or she is discharged or converted to voluntary status pursuant to section 17a-606 in due course of law. Such court order shall further command some suitable person to convey such person to such hospital for mental illness and deliver him or her, with a copy of such order and of such certificates, to the keeper thereof. In appointing a person to execute such order, the court shall give preference to a near relative or friend of the mentally ill person, so far as it deems it practicable and judicious. Notice of any action taken by the court shall be given to the respondent or his or her attorney, if any, in such manner as the court deems would be appropriate under the circumstances."

³⁴ General Statutes § 45a-650 provides in relevant part: "HEARING. APPOINTMENT OF CONSERVATOR. . . .

"(c) If the court finds by clear and convincing evidence that the respondent is incapable of managing his or her affairs then the court shall appoint a conservator of his or her estate. If the court finds by clear and convincing evidence that the respondent is incapable of caring for himself or herself, then the court shall appoint a conservator of his or her person."

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der him competent to stand trial.³⁶ See *Donaldson v. District Court*, 847 P.2d 632 (Colo. 1993) (recognizing that petitioning party must establish factors allowing for forced medication by clear and convincing evidence).

IV

The defendant also claims that a guardian or special public defender should have been appointed by the trial court to represent his medical interests. We agree that a defendant's medical interests may diverge from his legal interests and, therefore, that representation by counsel may be insufficient to protect adequately an incompetent defendant's medical interests. We also agree that, in most circumstances, a defendant who is incompetent to stand trial also will be incompetent to make his own health care decisions and, therefore, will be unable to assist his legal counsel to advocate for his best medical interests. Accordingly, barring the unusual circumstance in which a trial court finds that a defendant, although incompetent to stand trial, is competent to make his own health care decisions, the trial court should appoint a health care guardian to represent the defendant's health care interests to the court.³⁶ On

³⁶ Although the Supreme Court did not explicitly adopt a standard of proof for hearings concerning the involuntary medication of a criminal defendant in *Riggins v. Nevada*, supra, 504 U.S. 126-36, it did cite to *Addington v. Texas*, supra, 441 U.S. 418, for the proposition that the due process clause allows for the civil commitment of individuals shown by clear and convincing evidence to be mentally ill and dangerous. In light of the significant liberty interest at stake in a hearing on forced medication, due process requires no lighter burden on the state in this context.

³⁷ Because we are not confident that the appointment of a health care guardian is required by applicable due process principles, but because we are nonetheless convinced of the wisdom of such an appointment in an appropriate case, we reach this determination on the basis of our supervisory powers over matters of criminal justice, rather than under the federal due process clause. We note, however, that our conclusion is supported by constitutional considerations as to how to give proper deference to the medical decisions of a person not competent to make such decisions on his own; see *Woodland v. Angus*, supra, 820 F. Sup. 1515-18; and by state law provid-

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charged with his protection must seek a judicial determination of substituted judgment. No medical expertise is required in such an inquiry, although medical advice and opinion is to be used for the same purposes and sought to the same extent that the incompetent individual would, if he were competent. We emphasize that the determination is *not* what is medically in the ward's best interests—a determination better left to those with extensive medical training and experience. The determination of what the incompetent individual would do if competent will probe the incompetent individual's values and preferences, and such an inquiry, in a case involving antipsychotic drugs, is best made in courts of competent jurisdiction.

There is no bright line dividing those decisions which are (and ought to be) made by a guardian, from those for which a judicial determination is necessary. The tension which makes such a line so difficult to draw is apparent. There is an obvious need for broad, flexible, and responsive guardianship powers, but simultaneously there is a need to avoid the serious consequences accompanying a well-intentioned but mistaken exercise of those powers in making certain medical treatment decisions.

We have recently identified the factors to be taken into account in deciding when there must be a court order with respect to medical treatment of an incompetent patient. "Among them are at least the following: the extent of impairment of the patient's mental faculties, whether the pa-

1. Mass. Adv. Sh. (1980) at 1218-1217.

10. The doctors who testified in the proceedings below used the terms psychotropic ("acting on the mind") and antipsychotic ("tending to alleviate psychosis or psychotic states") interchangeably. Webster's New Collegiate Dictionary, at 50, 924 (1979). The distinction between the two terms has been subject to confusion in the past. See *Rogers II, supra* at 653 n.1. The specific drugs recommended in this case, Prolidin (fluphenazine) and Haldol (haloperidol), are both classified as "major tranquilizers" or "neuroleptics." Plotkin, *Limiting the Therapeutic Orgy: Mental Patients' Right to Refuse Treatment*, 72 Nw.U.L.Rev. 461, 474 n.75 and n.77 (1977). See generally Physicians'

patient is in the custody of a State institution, the prognosis without the proposed treatment, the prognosis with the proposed treatment, the complexity, risk and novelty of the proposed treatment, its possible side effects, the patient's level of understanding and probable reaction, the urgency of decision, the consent of the patient, spouse, or guardian, the good faith of those who participate in the decision, the clarity of professional opinion as to what is good medical practice, the interests of third persons, and the administrative requirements of any institution involved." *Matter of Spring, supra* at ———, 405 N.E.2d 115. Without intending to indicate the relative importance of these and other factors in all cases, it is appropriate to identify some of those factors which are weighty considerations in this particular case. They are: (1) the intrusiveness of the proposed treatment, (2) the possibility of adverse side effects, (3) the absence of an emergency, (4) the nature and extent of prior judicial involvement, and (5) the likelihood of conflicting interests.

(1) *The intrusiveness of the proposed treatment.* We can identify few legitimate medical procedures which are more intrusive than the forcible injection of antipsychotic medication.¹⁰ "In general, the drugs influence chemical transmissions to the brain, affecting both activatory and inhibitory functions. Because the drugs' purpose is to reduce the level of psychotic thinking, it is virtually undisputed that they are mind-altering." *Rogers I, supra* at 1360. A single injection of Haldol, one of the anti-

Desk Reference 1116-1118, 1728-1733 (35th ed. 1981). Their use is characterized by "(1) marked sedation, without sleep; (2) effectiveness in the most intensely agitated and excited patient; (3) progressive disappearance of symptoms in acute and chronic psychoses; (4) extra-pyramidal reaction; and (5) subcortical site of action." Plotkin, *supra* at 474 n.75. We refer to these drugs as "antipsychotic" drugs, "a more generally accepted and less confusing designation than other terminology." American College of Neuropsychopharmacology-Food and Drug Administration Task Force, *Neurologic Syndromes Associated with Antipsychotic Drug Use*, 289 New England J. Med. 20, 20 (1973).

GUARDIANSHIP OF ROE

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Institution, need treatment, proposed, and novelty, possible side effects, understanding, of decision, spouse, or who party of procedure, medical reasons, and of any in Spring, su. Without live imporn all cases, e of those erations in (1) the intment, (2) effects, (3) the nature olvement, ing inter-

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psychotic drugs proposed in this case. can be effective for ten to fourteen days. The drugs are powerful enough to immobilize mind and body. Because of both the profound effect that these drugs have on the thought processes of an individual and the well-established likelihood of severe and irreversible adverse side effects, see Part II A(2) infra, we treat these drugs in the same manner we would treat psychosurgery or electroconvulsive therapy. Compare Plotkin, Limiting the Therapeutic Orgy: Mental Patients' Right to Refuse Treatment, 72 Nw.U.L.Rev. 461, 466-474 (1977), with id. at 474-479. Additionally, "clinicians have encountered great difficulty in scientifically predicting a particular individual's response to a particular drug, and the results frequently appear paradoxical or idiosyncratic." Id. at 474-475. The record in this case indicates that if the drugs were mistakenly administered to a nonpsychotic individual, then that individual might develop a "toxic psychosis," causing him to suffer symptoms of psychosis. While the actual physical invasion involved in the administration of these drugs amounts to no more than an injection, the impact of the chemicals upon the brain is sufficient to undermine the foundations of personality.

While antipsychotic drugs can actually lessen the amount and intensity of psychotic thinking, among the most important reasons for their continued use is to control

11. The obvious potential for misuse of these drugs provides an additional reason to require judicial approval prior to the forcible use of antipsychotic drugs upon incompetent individuals. Another court, which in the past has not required court orders regarding the termination of life support equipment, now requires a court order before administration of treatment which had been "subject to abuse in the past." In re Grady, 85 N.J. 235, 252, 426 A.2d 467, 475 (1981). Compare In re Quinlan, 70 N.J. 10, 355 A.2d 647, cert. denied sub nom. Garger v. New Jersey, 429 U.S. 922, 97 S.Ct. 319, 50 L.Ed.2d 280 (1976), with In re Grady, supra. Commentators and courts have identified abuses of antipsychotic medication by those claiming to act in an incompetent's best interests. See Plotkin, supra; Baldessarini & Lipinski, Risks vs. Benefits of Antipsychotic Drugs, 289 New England J. Med. 42 (1973); Comment, Advances in Mental Health: A Case for the Right to Refuse

behavior. Plotkin, supra at 473. "[T]hese drugs have been intentionally used for disciplinary purposes, and they have been unintentionally misused as a result of either ignorance or inadequate resources. While psychotropic drugs may play a significant role in the treatment of psychiatric disorders, there is no wisdom in permitting their continued indiscriminate use upon unconsenting persons or upon persons who are uninformed as to their potential consequences." Id. at 478-479.

(2) The possibility of adverse side effects. Although, as we establish above, the intended effects of antipsychotic drugs are extreme, their unintended effects are frequently devastating and often irreversible. The adverse side effects accompanying administration of antipsychotic drugs have been known since the late 1950's. Baldessarini & Lipinski, Risks vs. Benefits of Antipsychotic Drugs, 289 New England J. Med. 427, 428 (1973). "[T]oxic effects regularly accompany the use of antipsychotic drugs to ameliorate schizophrenic symptoms. The most common results are the temporary, muscular side effects (extra-pyramidal symptoms) which disappear when the drug is terminated; dystonic reactions (muscle spasms, especially in the eyes, neck, face, and arms; irregular flexing, writhing or grimacing movements; protrusion of the tongue); akathisia (inability to stay still, restlessness, agitation); and Parkinsonisms

Treatment, 48 Temple L.Q. 354, 364 (1975). See also Mackey v. Procunier, 477 F.2d 877 (9th Cir. 1973); Rennie v. Klein, 476 F.Supp. 1294 (D.N.J.1979); Pena v. New York State Div. for Youth, 419 F.Supp. 203, 207 (S.D.N.Y. 1976); Nelson v. Heyne, 355 F.Supp. 451, 453 (N.D.Ind.1972), aff'd 491 F.2d 352 (7th Cir.), cert. denied, 417 U.S. 976, 94 S.Ct. 3183, 41 L.Ed.2d 1146 (1974).

The Supreme Court of New Jersey reasoned that a court "must ensure that the law does not allow abuse to continue." In re Grady, supra. We agree. The power of the State—and those empowered to act by the State—to administer mind-altering medication must be carefully circumscribed by guidelines and closely scrutinized for abuse. "Whatever powers the Constitution has granted our government, involuntary mind control is not one of them, absent extraordinary circumstances." Rogers v. supra at 1367.

(mask-like face, drooling, muscle stiffness and rigidity, shuffling gait, tremor). Additionally, there are numerous other non-muscular effects, including drowsiness, weakness, weight gain, dizziness, fainting, low blood pressure, dry mouth, blurred vision, loss of sexual desire, frigidity, apathy, depression, constipation, diarrhea, and changes in the blood. Infrequent, but serious, nonmuscular side effects, such as skin rash and skin discoloration, ocular changes, cardiovascular changes, and occasionally, sudden death, have also been documented.

"The most serious threat phenothiazines [one type of antipsychotic drug] pose to a patient's health is a condition known as tardive dyskinesia. This effect went unrecognized for years because its symptoms are often not manifested until late in the course of treatment, sometimes appearing after discontinuation of the drug causing the condition. Tardive dyskinesia is characterized by involuntary muscle movements, often in the oral region. The associated rhythmic movements of the lips and tongue (often mimicking normal chewing, blowing, or licking motions) may be grotesque and socially objectionable, resulting in considerable shame and embarrassment to the victim and his or her family. Additionally, hypertrophy of the tongue and ulcerations of the mouth may occur, speech may become incomprehensible, and, in extreme cases, swallowing and breathing may become difficult. To date, tardive dyskinesia has resisted curative efforts, and its disabling manifestations may persist for years.

"There is little doubt that prolonged administration of psychoactive drugs plays a major role in the development of tardive dyskinesia. Individual susceptibility to the condition depends upon a variety of factors including increasing age, sex, and the existence of organic brain syndromes" (footnotes omitted). Plotkin, *supra* at 475-477. Commentators and courts have found that an-

12. We admit the possibility and express the hope that future medical advances may produce antipsychotic drugs free from the severe adverse side effects we have described above. At the same time, it must be noted that the intended effect of the medication—to alter

tipsychotic drugs are high-risk treatment.¹² "Tardive dyskinesia is the most important complication of long-term neuroleptic use. What was initially thought to be a rare clinical curiosity has become a significant public health hazard." Jeste & Wyatt, *Changing Epidemiology of Tardive Dyskinesia: An Overview*, 138 *Am.J.Psych.* 297, 297 (1981). "[T]he risks of iatrogenically produced chronic neurologic disability are alarming." Baldessarini & Lipinski, *supra* at 428. See generally Jeste & Wyatt, *supra*; American College of Neuropsychopharmacology-Food and Drug Administration Task Force, *Neurologic Syndromes Associated with Antipsychotic-Drug Use*, 289 *New England J. Med.* 20 (1973); Crane, *Tardive Dyskinesia in Patients Treated with Major Neuroleptics: A Review of the Literature*, 124 *Am.J.Psych.* 40 (Feb. Supp. 1968). See also *Scott v. Planta*, 532 F.2d 939, 945 n.3 (3d Cir. 1976); *Rogers I, supra* at 1360; *Rennie v. Klein*, 462 F.Supp. 1131, 1135-1138 (D.N.J.1978); *In re Boyd*, 408 A.2d 744, 752 (D.C.App.1979).

(3) *The absence of an emergency.* The evidence presented in the proceedings below makes it quite clear that the probate judge was not presented with a situation which could accurately be described as an emergency. We accept the dictionary definition of "emergency": "an unforeseen combination of circumstances or the resulting state that calls for immediate action." Webster's Third New Int'l Dictionary, at 741 (1981). Medical evidence showed that the ward apparently had been schizophrenic for four years, without more than slight or temporary improvement, and that without treatment his mental health could deteriorate. Expert testimony indicated that the prognosis for most individuals with untreated schizophrenia was "gradual worsening." In an attempt to elicit an individual prognosis, counsel for the guardian posed a significant question to the expert. "[I]s there a point

mental processes—by definition cannot be eliminated from those drugs we have described as "antipsychotic." Nevertheless, we do not foreclose reconsideration of these issues when and if it can be shown that the characteristics of antipsychotic drugs have changed.

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recognizes a liberty interest under the Due Process Clause, which requires certain procedural protections before the State may medicate an inmate against his will.

The Washington hearing, with the procedural requirements required by the Due Process Clause, is not required by the Due Process Clause to administer antipsychotic medication. In addition, the court's characterization of involuntary medication as a "clear, cogent, and definite administrative action" does not comport with the requirements of the Due Process Clause at the Washington hearing as a pre-condition to prison inmates.

between the parties is the State's interest as the decisionmaker. As

the trial court did not find that the evidence of which are hearsay, it

in a debate with JUSTICE BRENNAN, the majority opinion should find that "at all times, the inmate is at risk from a mental disorder which could result in serious harm if the medical treatment is not administered with a degree of care, skill, and judgment by a psychiatrist in the State of Washington." *Ibid.* of this last finding, see also the breadth of its

written, the Policy requires that the decision whether to medicate an inmate against his will be made by a hearing committee composed of a psychiatrist, a psychologist, and the Center's Associate Superintendent. None of the committee members may be involved, at the time of the hearing, in the inmate's treatment or diagnosis; members are not disqualified from sitting on the committee, however, if they have treated or diagnosed the inmate in the past. The committee's decision is subject to review by the Superintendent; if the inmate so desires, he may seek judicial review of the decision in a state court. See *supra*, at 216. Respondent contends that only a court should make the decision to medicate an inmate against his will.

The procedural protections required by the Due Process Clause must be determined with reference to the rights and interests at stake in the particular case. *Morrissey v. Brewer*, 408 U. S. 471, 481 (1972); *Hevitt*, 459 U. S., at 472; *Greenholtz v. Nebraska Penal Inmates*, 442 U. S. 1, 12 (1979). The factors that guide us are well established. "Under *Mathews v. Eldridge*, 424 U. S. 319, 335 (1976), we consider the private interests at stake in a governmental decision, the governmental interests involved, and the value of procedural requirements in determining what process is due under the Fourteenth Amendment." *Hevitt*, *supra*, at 473.

Respondent's interest in avoiding the unwarranted administration of antipsychotic drugs is not insubstantial. The forcible injection of medication into a nonconsenting person's body represents a substantial interference with that person's liberty. Cf. *Winston v. Lee*, 470 U. S. 753 (1985); *Schmerber v. California*, 384 U. S. 757, 772 (1966). The purpose of the drugs is to alter the chemical balance in a patient's brain, leading to changes, intended to be beneficial, in his or her cognitive processes. See n. 1, *supra*. While the therapeutic benefits of antipsychotic drugs are well documented, it is also true that the drugs can have serious, even fatal, side effects. One such side effect identified by the trial court is acute dystonia, a severe involuntary spasm of the upper

body, tongue, throat, or eyes. The trial court found that it may be treated and reversed within a few minutes through use of the medication Cogentin. Other side effects include akathisia (motor restlessness, often characterized by an inability to sit still); neuroleptic malignant syndrome (a relatively rare condition which can lead to death from cardiac dysfunction); and tardive dyskinesia, perhaps the most discussed side effect of antipsychotic drugs. See Finding of Fact 9, App. to Pet. for Cert. B-7; Brief for American Psychological Association as *Amicus Curiae* 6-9. Tardive dyskinesia is a neurological disorder, irreversible in some cases, that is characterized by involuntary, uncontrollable movements of various muscles, especially around the face. See *Mills*, 467 U. S., at 298, n. 1. The State, respondent, and *amici* sharply disagree about the frequency with which tardive dyskinesia occurs, its severity, and the medical profession's ability to treat, arrest, or reverse the condition. A fair reading of the evidence, however, suggests that the proportion of patients treated with antipsychotic drugs who exhibit the symptoms of tardive dyskinesia ranges from 10% to 25%. According to the American Psychiatric Association, studies of the condition indicate that 60% of tardive dyskinesia is mild or minimal in effect, and about 10% may be characterized as severe. Brief for American Psychiatric Association et al. as *Amici Curiae* 14-16, and n. 12; see also Brief for American Psychological Association as *Amicus Curiae* 8.⁴

⁴ JUSTICE STEVENS is concerned with "discount[ing] the severity of these drugs." See *post*, at 239, n. 5. As our discussion in the text indicates, we are well aware of the side effects and risks presented by these drugs; we also are well aware of the disagreements in the medical profession over the frequency, severity, and permanence of these side effects. We have set forth a fair assessment of the current state of medical knowledge about these drugs.

What JUSTICE STEVENS "discount[s]" are the benefits of these drugs, and the deference that is owed to medical professionals who have the full

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concerned, the inmate, the institution, its staff, the physi-
cian, and the State itself. Cf. *Zimmerman v. Burch*, ante,
p. 113. It is a step that should not be avoided or neglected
when significant indications of incompetency are present.

JUSTICE STEVENS, with whom JUSTICE BRENNAN and
JUSTICE MARSHALL join, concurring in part and dissenting
in part.

While I join the Court's explanation of why this case is not
moot, I disagree with its evaluation of the merits. The
Court has undervalued respondent's liberty interest; has mis-
read the Washington involuntary medication Policy and mis-
applied our decision in *Turner v. Safley*, 482 U. S. 78 (1987);
and has concluded that a mock trial before an institutionally
biased tribunal constitutes "due process of law." Each of
these errors merits separate discussion.

I

The Court acknowledges that under the Fourteenth
Amendment "respondent possesses a significant liberty in-
terest in avoiding the unwanted administration of antipsy-
chotic drugs," ante, at 221, but then virtually ignores the sev-
eral dimensions of that liberty. They are both physical and
intellectual. Every violation of a person's bodily integrity is
an invasion of his or her liberty. The invasion is particularly
intrusive if it creates a substantial risk of permanent injury
and premature death.¹ Moreover, any such action is de-
grading if it overrides a competent person's choice to reject a
specific form of medical treatment.² And when the purpose

¹ Cf., e. g., *Whitton v. Lev*, 470 U. S. 763 (1985) (surgery); *Foungheig v. Romeo*, 457 U. S. 307 (1982) (use of physical "soft" restraints for the arms and "muffs" for hands).

² See *Mills v. Rogers*, 457 U. S. 291, 294, n. 4, 299, n. 16 (1982) (rec-
ognizing common-law battery for unauthorized touchings by a physician
and assuming liberty interests are implicated by involuntary administra-
tion of psychotropic drugs); *United States v. Stanley*, 483 U. S. 669, 710
(1987) (O'CONNOR, J., concurring in part and dissenting in part) (the Con-
stitution's promise of due process of law guarantees at least compensation

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urope).

The record of one of Walter Harper's involuntary medication hearings at the Special Offense Center (SOC) notes: "Inmate Harper stated he would rather die th[an] take medication."⁴ That Harper would be so opposed to taking psychotropic drugs is not surprising; as the Court acknowledges, these drugs both "alter the chemical balance in a patient's brain" and can cause irreversible and fatal side effects.⁴

⁴Lodging filed by Kenneth O. Eikenberry, Attorney General of Washington (hereinafter Lodging), Book 8, Jan. 5, 1984, Hearing (Harper testified: "Well all you want to do is medicate me and you've been medicating me. . . . Hal[d] paralyzed my right side of my body. . . . [Y]ou are burning me out of my life. . . . [Y]ou are burning me out of my freedom").

The Lodging includes "books" of discovery material that the parties stipulated "could be considered by the [Trial] Court as substantive evidence and the [Trial] Court . . . considered those documents." App. to Pet. for Cert. 5-1. They are hereinafter referred to by Book number and the date of the entry, where applicable. I use the Lodging not to "engage in a debate" over the assessment of Harper's treatment, *ante*, at 228, n. 11, but simply to illustrate the boundaries of Policy 600.30 in operation.

⁵*Ante*, at 229. The Court relies heavily on the Brief for American Psychiatric Association et al. as *Amicus Curiae* (Psychiatrists' Brief), see *ante*, at 214, 226, and n. 9, 227, and n. 10, 230, to discount the severity of these drugs. However, medical findings discussed in other briefs support the conclusions of the Washington Supreme Court and challenge the reliability of the Psychiatrists' Brief. For example, the Brief for American Psychological Association as *Amicus Curiae* (Psychologists' Brief) points out that the observation of tardive dyskinesia has been increasing "at an alarming rate" since the 1950-1970 data relied on by the Psychiatrists' Brief 14-16, and that "the chance of suffering this potentially devastating disorder is greater than one in four." Psychologists' Brief 8. See also Brief for Coalition for Fundamental Rights and Equality of Ex-Patients as *Amicus Curiae* 16-18 (court findings and recent literature on side effects); Brief for National Association of Protection and Advocacy Systems et al. as *Amicus Curiae* 7-16 (same). Psychiatrists also may not be entirely disinterested experts. The psychologists charge: "As a psychiatrist has written, 'Litigation from patients suffering from TD [tardive dyskinesia] is expected to explode within the next five years. Some psychiatrists and other physicians continue to minimize the seriousness of TD . . . [despite] continual warnings.'" Psychologists' Brief 4 (quoting R. Simon, *Clinical Psychiatry and the Law* 74 (1987)).

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The prolixin injections that Harper was receiving at the time of his statement exemplify the intrusiveness of psychotropic drugs on a person's body and mind. Prolixin acts "at all levels of the central nervous system as well as on multiple organ systems."⁶ It can induce catatonic-like states, alter electroencephalographic tracings, and cause swelling of the brain. Adverse reactions include drowsiness, excitement, restlessness, bizarre dreams, hypertension, nausea, vomiting, loss of appetite, salivation, dry mouth, perspiration, headache, constipation, blurred vision, impotency, eczema, jaundice, tremors, and muscle spasms. As with all psychotropic drugs, prolixin may cause tardive dyskinesia, an often irreversible syndrome of uncontrollable movements that can prevent a person from exercising basic functions such as driving an automobile, and neuroleptic malignant syndrome, which is 80% fatal for those who suffer from it.⁷ The risk of side effects increases over time.⁸

The Washington Supreme Court properly equated the intrusiveness of this mind-altering drug treatment with electroconvulsive therapy or psychosurgery. It agreed with the Supreme Judicial Court of Massachusetts' determination that the drugs have a "profound effect" on a person's "thought

⁶ Physician's Desk Reference 1639 (13d ed. 1989).

⁷ *Id.*, at 1640; Trial Court Finding 9, App. to Pet. for Cert. B-7 to B-8; Guze & Baxter, Neuroleptic Malignant Syndrome, 313 New England J. Med. 103, 103-104 (1985).

⁸ Physician's Desk Reference, *supra*, at 1639. Harper voluntarily took psychotropic drugs for six years before involuntary medication began in 1982, by which time he had already exhibited dystonia (acute muscle spasms) and akathisia (physical-emotional agitation). *E. v. Lodgeing*, Book 2, May 28, 1982, Aug. 4, 1982; see also Trial Court Findings 9-10, App. to Pet. for Cert. B-7 to B-8. Although avoidance of akathisia and the risk of tardive dyskinesia require reduction or discontinuance of psychotropics, *ibid.*, Harper's involuntary medication was continuous from November 1982 to June 1986, except for one month spent at Washington State Reformatory, Lodgeing, Book 8; Trial Court Findings 4-6, 9, App. to Pet. for Cert. B-4 to B-8.

ving at the time of psychotropic acts "at all levels, multiple organs, alter electro- g of the brain, ment, restless- omitting, loss of headache, con- jaundice, trem- otropic drugs, en irreversible can prevent a as driving an ome. which is of side ef-

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voluntarily took lication began in ia (acute muscle E. p., Lodging, Findings 9-10. of aksthesia and (scontinuance of continuous from it at Washington ngs 4-6. 9. App.

processes" and a "well-established likelihood of severe and irreversible adverse side effects," and that they therefore should be treated "in the same manner we would treat psychosurgery or electroconvulsive therapy." 110 Wash. 2d 878, 878, 759 P. 2d 858, 862 (1988) (quoting *In re Guardianship of Roe*, 383 Mass. 415, 496-497, 421 N. E. 2d 40, 53 (1981)). There is no doubt, as the State Supreme Court and other courts that have analyzed the issue have concluded, that a competent individual's right to refuse such medication is a fundamental liberty interest deserving the highest order of protection."

II

Arguably, any of three quite different state interests might be advanced to justify a deprivation of this liberty interest. The State might seek to compel Harper to submit to a mind-altering drug treatment program as punishment for the crime he committed in 1976, as a "cure" for his mental illness, or as a mechanism to maintain order in the prison. The Court today recognizes Harper's liberty interest only as against the first justification.

Forced administration of antipsychotic medication may not be used as a form of punishment. This conclusion follows inexorably from our holding in *Vitek v. Jones*, 445 U. S. 480 (1980), that the Constitution provides a convicted felon the protection of due process against an involuntary transfer from the prison population to a mental hospital for psychiatric treatment. We explained:

"110 Wash. 2d, at 878, 759 P. 2d, at 862. See, e. g., *Largo v. Superior Court*, 148 Ariz. 229, 711 P. 2d 899 (1986) (en banc); *Riese v. St. Mary's Hospital and Medical Center*, 209 Cal. App. 3d 1300, 248 Cal. Rptr. 241 (1st Dist. 1988), review granted but denied, 774 P. 2d 698 (1989); *People v. Medina*, 705 P. 2d 961 (Colo. 1985) (en banc); *Rogers v. Commissioner of Dept. of Mental Health*, 390 Mass. 489, 458 N. E. 2d 305 (1983); *Rivers v. Katz*, 67 N. Y. 2d 485, 405 N. E. 2d 337 (1986); *In re Mental Health of K. K. B.*, 609 P. 2d 747 (Okla. 1980). Cf. *In re Schuster*, 104 Wash. 2d 500, 723 P. 2d 1103 (1986) (right to refuse electroconvulsive therapy).

CONNECTICUT LEGAL RIGHTS PROJECT

001079

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**Testimony of Susan Aranoff, J.D. Staff Attorney
Connecticut Legal Rights Project, Inc.
Before the Judiciary Committee
February 5, 2007**

Good afternoon, Senator McDonald, Representative Lawlor, and distinguished members of the Judiciary Committee. I am Susan Aranoff, Staff Attorney at Connecticut Legal Rights Project and I am here today to speak on H.B. 6391, An Act Concerning Involuntary Administration of Psychiatric Medication for Purposes of Competency to Stand Trial.

Connecticut Legal Rights Project, Inc. is a non-profit legal services agency that provides individual and systemic legal services to indigent adults who have, or are perceived as having, psychiatric disabilities and who receive, or are eligible to receive, services from the Department of Mental Health and Addiction Services.

Connecticut Legal Rights Project maintains offices at all DMHAS operated in-patient and out-patient facilities in the state. Our offices are staffed by attorneys and advocates. I provide legal services to individual clients and I supervise four paralegal advocates. My testimony today is informed by my expertise in the area of patients rights, in general, and my direct experiences in Connecticut.

Connecticut Legal Rights Project Opposes H.B. 6391 as drafted but would not oppose the bill if it is amended as proposed in Dr. Michael Norko's testimony, language is attached to this testimony.

H.B. 6391 proposes to change the conditions that govern the involuntary medication of defendants who are either unwilling or unable to consent to psychiatric medications and who meet the criteria set out in CGS § 54-56d, Subsection (k), paragraph (2). CLRP opposes the bill as introduced because it allows for the indefinite and unsupervised involuntary medication of persons who are both competent to stand trial and competent to give or withhold informed consent to medication. 001080

The United States Supreme Court has repeatedly held that in the absence of adequate due process protections, the forcible administration of psychiatric medication violates several constitutional rights. As introduced, H.B. 6391 fails to provide adequate due process protections. Its primary deficiency is that it allows doctors to forcibly medicate patients indefinitely without either a substitute decision-maker- such as a conservator- and without any judicial oversight subsequent to the superior court's initial order. As introduced, H.B. 6391 allows for the indefinite forced medication of a pre-trial detainee who is presumed to be innocent, even if that person is competent to stand trial and competent to give or withhold informed consent. CLRP believes that, in its current form, H.B. 6391 would be unconstitutional.

The above notwithstanding, Dr. Norko negotiated in good faith with CLRP and Advocacy Unlimited. As a result of these negotiations, Dr. Norko agreed to propose several amendments. The proposed amendments would require six month reviews of the involuntary medication orders and would eliminate the forcible medication of pre-trial detainees who are both competent to stand trial and competent to give or withhold informed consent to treatment.

While CLRP cannot support the forcible medication of anyone, we do not oppose the bill as amended. Thank you for the opportunity to address the committee today on this important bill. I would be happy to answer any questions you may have at this time.

001081

PROPOSED AMENDMENTS TO H.B. 6391

The amendments are set out below and are the same as proposed by Dr. Michael Norko.

1. In line [n] change the language to **require** a supplemental report of the Health Care Guardian by changing the word "may" to "shall." In line [n] the word "any" would be changed to "the" also referring to this change from a permissive to a required Health Care Guardian report.

2. In line [n] we would propose to delete the words "unwilling or" in order to eliminate the possibility of a defendant capable of providing informed consent being forced to receive unwanted medication under this mechanism.

3. Add a new section (5) detailing a periodic review every 180 days of such an order. The periodic review would be conducted in the same manner as the original review. The language of this newly suggested section is:

(5) An order for continued involuntary medication to maintain competency to stand trial entered under subsection (4) shall be reviewed by the court every 180 days while it remains in effect. At each review, the court will receive a supplemental report of the health care guardian and must find each of the enumerated criteria in subsection (4) by clear and convincing evidence in order to continue the order for involuntary medication.

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State of Connecticut
DIVISION OF PUBLIC DEFENDER SERVICES

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Testimony of

Monte Radler, Public Defender

**Raised Bill 6391, AN ACT CONCERNING INVOLUNTARY
ADMINISTRATION OF PSYCHIATRIC MEDICATION FOR PURPOSES
OF COMPETENCY TO STAND TRIAL**

Judiciary Committee Public Hearing

February 5, 2007

While not opposed, the Office of Chief Public Defender has concern over the language and intent of Raised Bill, 6391 - **AN ACT CONCERNING INVOLUNTARY ADMINISTRATION OF PSYCHIATRIC MEDICATION FOR PURPOSES OF COMPETENCY TO STAND TRIAL**. Of concern specifically are sections K(3)(A) and K(3)(B) which would authorize continued involuntary administration of psychiatric medication to a criminal defendant for purposes of maintaining the defendant's competency to stand trial.

The concept makes sense to the extent that most mentally ill persons requiring medication as contemplated here will decompensate if they stop taking it. Starting and stopping medication can hinder not only its effectiveness, but also public safety. However, the fact remains that the sole reason a person is being medicated in this context is to prosecute them. Once the prosecution has been completed, assuming the person is sentenced to prison, there is no assurance that there will be any continuity of care in the case where subsequently the person goes off his or her medication and is not a 'maintenance' problem in corrections.

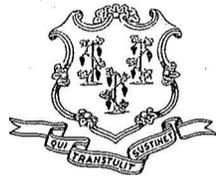
As the Connecticut statutes are now configured, Connecticut Valley Hospital (CVH) can proceed through the normal probate process to involuntarily medicate 54-56d detainees if their health is compromised, just as CVH would do so with any other civil patient. While the approach being proposed might not, in theory, present as much of an ethical issue in the situation where an individual is charged with a very serious crime, that element of the Garcia test, i.e., seriousness of the crime, is not well defined. (See *State v. Garcia*, 265 Conn. 44 (1995). Yet, there is a concern that there is a belief by law enforcement, and perhaps the judiciary, that even minor crimes involving law enforcement fall within that category. Using this law in the context of those types of cases might run afoul of the spirit of *Sell v. United States*, 123 S. Ct. 2174 (2003), the latest case decided by the United States Supreme Court addressing the issue of forcible medication in the context of competency restoration. In *Sell*, the Supreme Court does not mandate the use of civil commitment, or other civil procedures, as a prerequisite to a court order to involuntarily medicate a criminal defendant in order to render him competent to stand trial. It does, however, recommend that consideration be given to whether involuntary medication might be justified on some other ground, thereby avoiding the need to make that decision solely upon the ground of competence to stand trial. The Court made reference to its earlier decision in *Washington v. Harper*, 494 U.S. 210 (1990) noting that the purpose of the medication order in that case "related to the individual's dangerousness, or purposes related to the individual's own interests where the refusal to take drugs puts his health gravely at risk...", going on to observe that "there are strong reasons for a court to determine whether forced administration of drugs can be justified on these alternative grounds before turning to the trial competence question." The Court went on to note that the decision whether to medicate to address these other issues is usually more objective and manageable than the issues surrounding competence to stand trial, and that medical experts may find it easier to provide an informed opinion in these other contexts as opposed to trying to balance harms and benefits related to the more legal questions of trial fairness and competence.

There are other concerns as well. The proposed bill is unclear as to the impact such a revision would have in situations where the defense believes that it is in the defendant's best interest to regress into a psychotic state for trial strategy purposes. It is even less clear the impact that such a revision would have in the case of a capital death penalty case where the defendant was convicted of a capital crime and sentenced to death. As proposed, an inquiry is necessary as to whether such a provision could be used as justification to render a person competent to be executed.

The text of the proposed bill, specifically the language which articulates "in anticipation of considering continued involuntary medication [to keep a defendant competent]", appears to suggest that the bill is intended to save time and judicial resources. An alternative intention is that the bill is being proposed in an effort to keep 54-56d (C.G.S.) detainees out of the hospital and free up bed space.

Either way, the concerns as articulated, exist. The Office of Chief Public Defender, therefore, would be willing to meet with the proponent to address its concerns. Such a dialogue might provide insight that would resolve the concerns as raised in this testimony. Thank you for the opportunity to testify here today.

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M. JODI RELL
GOVERNOR

STATE OF CONNECTICUT

DEPARTMENT OF MENTAL HEALTH
AND ADDICTION SERVICES
A HEALTHCARE SERVICE AGENCY

THOMAS A. KIRK, JR., Ph.D.
COMMISSIONER

Testimony of Michael Norko, M.D., Director Whiting Forensic Division, Connecticut Valley Hospital Before the Judiciary Committee February 5, 2007

Good afternoon, Senator McDonald, Representative Lawlor, and distinguished members of the Judiciary Committee. I am Dr. Michael Norko, Director of the Whiting Forensic Division of Connecticut Valley Hospital, and I am here today to speak in support of H.B. 6391, An Act Concerning Involuntary Administration of Psychiatric Medication for Purposes of Competency to Stand Trial.

There are two mechanisms in Connecticut for involuntarily medicating defendants with psychiatric disabilities who are found not competent to stand trial. One parallels the civil procedures for appointing conservators authorized to give such consent, and this mechanism utilizes the Probate Court to appoint Special Limited Conservators under CGS § 17a-543a. This mechanism has been used almost exclusively since it was made available on October 1, 2004 in Public Act 04-160.

H.B. 6391 is a proposed change to the **other** mechanism for accomplishing involuntary medication of defendants who are either unwilling or unable to consent to psychiatric medications and who meet the criteria set out in CGS § 54-56d, Subsection (k), paragraph (2). This mechanism

is used in the criminal court and can be applied only to defendants for whom there is made a legal determination that the seriousness of the alleged crime is such that the criminal law enforcement interest of the state overrides the defendant's interest in self-determination.

The proceedings necessary to the determinations required for this form of involuntary medication are significant, involving the appointment of a Health Care Guardian to advise the court about the defendant's best medical interests related to psychiatric medication. However, once a court determines that all the criteria are met for such an order, and thus authorizes the use of involuntary medication, when the defendant is restored to competence to stand trial, that order is no longer valid. At that point, defendants are free to once again refuse psychiatric medications and, often when they do, they once again experience deterioration of their mental condition, usually manifested as a serious psychotic condition. We know that each time an individual re-experiences a psychotic episode, it becomes more difficult to treat the individual to reduce or eliminate the symptoms of psychosis.

Most often, that psychosis will also return the defendant to a state of incompetence to stand trial, thus necessitating a repetition of the entire mechanism for evaluating competence, ordering treatment to restore competence, and then once again seeking involuntary treatment – a process which bears a high cost for court services, court personnel and then for hospital-level treatment services. The defendant also pays a price in terms of the suffering that is associated with renewed psychosis and the imposition of a new cycle of involuntary treatment proceedings and probable re-hospitalization. The recurrence of acute psychiatric symptoms also prevents the trial from going forward, and may deprive the defendant of a speedy trial.

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In the legislation before you, we are seeking an additional change to this mechanism.. We would like to amend the bill's wording to create an option allowing the court to consider whether involuntary medications are necessary in order to **maintain** the defendant's competence to stand trial. The criteria for such an order would be the same as the criteria for the initial order for medication to restore competency to stand trial.

In our discussions with representatives of the Connecticut Legal Rights Project and Advocacy Unlimited, we have considered some language changes that we would like to offer and support.

- In line 84, we would change the language to require a supplemental report of the Health Care Guardian by changing the word "may" to "shall."
- In line 95, the word "any" would be changed to "the" (referring back to the line 84 change, above), from a permissive to a required Health Care Guardian report.
- In line 93, we propose to delete the words "unwilling or" in order to eliminate the possibility of a defendant who is capable of providing informed consent being forced to receive unwanted medication under this mechanism.
- After line 112 and before the current section 5, we wish to add a new section (5), detailing a periodic review every 180 days of such an order. The periodic review would be conducted in the same manner as the original review. The language of this newly suggested section is as follows:

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“(5) An order for continued involuntary medication to maintain competency to stand trial entered under subsection (4) shall be reviewed by the court every 180 days while it remains in effect. At each review, the court will receive a supplemental report of the health care guardian and must find each of the criteria enumerated in subsection (4) by clear and convincing evidence in order to continue the order for involuntary medication.”

- The addition of the above language would change the numbering for former section [4] on line 113 to section **(6)**.

This bill will not affect a great number of people, but for the few people to whom it will apply, it will create the potential to save the individual from unnecessary repeated suffering and repeated hospitalization. This will also permit the legal system to operate more smoothly and expediently in resolving the issue of the defendant's guilt or innocence and will spare the unnecessary wasting of finite resources in both the criminal justice system and the mental health service system, as is currently the case. We have also worked to balance the defendant's liberty and due process interests in this proposal.

Thank you for the opportunity to address the committee today. With the inclusion of the foregoing changes, we strongly support passage of this bill. I would be happy to answer any questions you may have at this time.

001088



General Assembly
January Session, 2007

Raised Bill No. 6391

LCO No. 3340

03340 _____ JUD

Referred to Committee on Judiciary

Introduced by:

(JUD)

***AN ACT CONCERNING INVOLUNTARY ADMINISTRATION OF PSYCHIATRIC
MEDICATION FOR PURPOSES OF COMPETENCY TO STAND TRIAL.***

Be it enacted by the Senate and House of Representatives in General Assembly
convened:

Section 1. Subsection (k) of section 54-56d of the general statutes is repealed and the
following is substituted in lieu thereof (*Effective October 1, 2007*):

(k) (1) When any placement order for treatment is rendered or continued, the court shall set a date for a hearing, to be held within ninety days, for reconsideration of the issue of the defendant's competency. Whenever the court (A) receives a report pursuant to subsection (j) of this section which indicates that (i) the defendant has attained competency, (ii) the defendant will not attain competency within the remainder of the period covered by the placement order, (iii) the defendant will not attain competency within the remainder of the period covered by the placement order absent administration of psychiatric medication for which the defendant is unwilling or unable to provide consent, or (iv) the defendant would be eligible for civil commitment pursuant to subdivision (2) of subsection (h) of this section, or (B) receives a report pursuant to subparagraph (A)(iii) of subdivision (2) of subsection (h) of this section which indicates that (i) the application for civil commitment of the defendant has been denied or has not been pursued by the Commissioner of Mental Health and Addiction Services, or (ii) the defendant is unwilling or unable to comply with a treatment plan despite reasonable efforts of the treatment facility to encourage the defendant's compliance, the court shall set the matter for a hearing no later than ten days after the report is received. The hearing may be waived by the defendant only if the report

indicates that the defendant is competent. The court shall determine whether the defendant is competent or is making progress toward attainment of competency within the period covered by the placement order. If the court finds that the defendant is competent, the defendant shall be returned to the custody of the Commissioner of Correction or released, if the defendant has met the conditions for release, and the court shall continue with the criminal proceedings. If the court finds that the defendant is still not competent but that the defendant is making progress toward attaining competency, the court may continue or modify the placement order. If the court finds that the defendant is still not competent and will not attain competency within the remainder of the period covered by the placement order absent administration of psychiatric medication for which the defendant is unwilling or unable to provide consent, the court shall proceed as provided in subdivisions (2), [and] (3) and (4) of this subsection. If the court finds that the defendant is eligible for civil commitment, the court may order placement of the defendant at a treatment facility pending civil commitment proceedings pursuant to subdivision (2) of subsection (h) of this section.

(2) If the court finds that the defendant will not attain competency within the remainder of the period covered by the placement order absent administration of psychiatric medication for which the defendant is unwilling or unable to provide consent, and after any hearing held pursuant to subdivision (3) of this subsection, the court may order the involuntary medication of the defendant if the court finds by clear and convincing evidence that: (A) To a reasonable degree of medical certainty, involuntary medication of the defendant will render the defendant competent to stand trial, (B) an adjudication of guilt or innocence cannot be had using less intrusive means, (C) the proposed treatment plan is narrowly tailored to minimize intrusion on the defendant's liberty and privacy interests, (D) the proposed drug regimen will not cause an unnecessary risk to the defendant's health, and (E) the seriousness of the alleged crime is such that the criminal law enforcement interest of the state in fairly and accurately determining the defendant's guilt or innocence overrides the defendant's interest in self-determination.

(3) (A) If the court finds that the defendant is unwilling or unable to provide consent for the administration of psychiatric medication, and prior to deciding whether to order the involuntary medication of the defendant under subdivision (2) of this subsection, the court shall appoint a health care guardian who shall be a licensed health care provider with specialized training in the treatment of persons with psychiatric disabilities to represent the health care interests of the defendant before the court. Notwithstanding the provisions of section 52-146e, such health care guardian shall have access to the psychiatric records of the defendant. Such health care guardian shall file a report with the court not later than thirty days after his or her appointment. The report shall set forth such health care guardian's findings and recommendations concerning the administration of psychiatric medication to the defendant, including the risks and benefits of such medication, the likelihood and seriousness of any adverse side effects and the prognosis with and without such medication. The court shall hold a hearing on

the matter not later than ten days after receipt of such health care guardian's report and shall, in deciding whether to order the involuntary medication of the defendant, take into account such health care guardian's opinion concerning the health care interests of the defendant.

(B) The court, in anticipation of considering continued involuntary medication of the defendant under subdivision (4) of this subsection, may shall order the health care guardian to file a supplemental report updating the findings and recommendations contained in the health care guardian's report filed under subparagraph (A) of this subdivision.

(4) If, after the defendant has been found to have attained competency by means of involuntary medication ordered under subdivision (2) of this subsection, the court determines by clear and convincing evidence that the defendant will not remain competent absent the continued administration of psychiatric medication for which the defendant is unwilling or unable to provide consent, and after any hearing held pursuant to subdivision (3) of this subsection and consideration of any the supplemental report of the health care guardian, the court may order continued involuntary medication of the defendant if the court finds by clear and convincing evidence that: (A) To a reasonable degree of medical certainty, continued involuntary medication of the defendant will maintain the defendant's competency to stand trial, (B) an adjudication of guilt or innocence cannot be had using less intrusive means, (C) the proposed treatment plan is narrowly tailored to minimize intrusion on the defendant's liberty and privacy interests, (D) the proposed drug regimen will not cause an unnecessary risk to the defendant's health, and (E) the seriousness of the alleged crime is such that the criminal law enforcement interest of the state in fairly and accurately determining the defendant's guilt or innocence overrides the defendant's interest in self-determination. Continued involuntary medication ordered under this subdivision may be administered to the defendant while the criminal charges against the defendant are pending and the defendant is in the custody of the Commissioner of Correction or the Commissioner of Mental Health and Addiction Services.

(5) An order for continued involuntary medication to maintain competency to stand trial entered under subsection (4) shall be reviewed by the court every 180 days while it remains in effect. At each review, the court will receive a supplemental report of the health care guardian and must find each of the enumerated criteria in subsection (4) by clear and convincing evidence in order to continue the order for involuntary medication.

[(4)] (56) The state shall hold harmless and indemnify any health care guardian appointed by the court pursuant to subdivision (3) of this subsection from financial loss and expense arising out of any claim, demand, suit or judgment by reason of such health care guardian's alleged negligence or alleged deprivation of any person's civil

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rights or other act or omission resulting in damage or injury, provided the health care guardian is found to have been acting in the discharge of his or her duties pursuant to said subdivision and such act or omission is found not to have been wanton, reckless or malicious. The provisions of subsections (b), (c) and (d) of section 5-141d shall apply to such health care guardian. The provisions of chapter 53 shall not apply to a claim against such health care guardian.

This act shall take effect as follows and shall amend the following sections:

Section 1	October 1, 2007	54-56d(k)
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Statement of Purpose:

To authorize continued involuntary administration of psychiatric medication to a criminal defendant for the purpose of maintaining the defendant's competency to stand trial.

[Proposed deletions are enclosed in brackets. Proposed additions are indicated by underline, except that when the entire text of a bill or resolution or a section of a bill or resolution is new, it is not underlined.]

001092



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Testimony
Judiciary Committee Public Hearing
Melissa Marshall, Executive Director
Advocacy Unlimited
February 5, 2007

Good afternoon, Senator Mac Donald, Representative Lawlor and members of the Judiciary Committee. My name is Melissa Marshall and I am the Executive Director of Advocacy Unlimited (AU). I am here today to testify on two bills: **H.B. 6391 AAC Involuntary Administration of Psychiatric Medication for Purposes of Competency to Stand Trial** and **H.B. 6987 AAC the Rights of Inmates with Mental Illness**.

Advocacy Unlimited is an organization run by and for people with psychiatric disabilities that promotes and protects the rights of people with psychiatric disabilities. AU provides an intensive education course to individuals with psychiatric disabilities across the state. For the last 36 months AU has been offering this course to residents of the medium security section of the Whiting Division at Connecticut Valley Hospital.

AU is opposed to **H.B. 6391** as drafted. The present version permits forcibly medicating competent pre-trial detainees without sufficient due process. That is, it allows for competent individuals who are presumed innocent to be forcibly medicated without even a substitute decision maker, such as a conservator, or without judicial oversight subsequent to the superior court's order.

However, AU supports the bill with amendments proposed by Dr. Michael Norko previously. Dr. Norko, in collaboration with Advocacy Unlimited and the Connecticut Legal Rights Project, has developed substitute language that all parties find acceptable. It provides for periodic review every 180 days, requires a Health Care Guardian to file supplemental reports by changing the word "may" to "shall" and deleting the words "or unwilling" thus eliminating the possibility of a defendant capable of informed consent from receiving unwanted medication under this provision. While AU does not support the forced medication of individuals it does not oppose the proposed legislation with the recommended changes which are attached.

Advocacy Unlimited supports **H.B. 6987 AAC the Rights of Inmates with Mental Illness**. This bill will help ensure that inmates with psychiatric disabilities have access to vital mental health services.

Thank you for your consideration. I am glad to take any questions.

"Building a grassroots advocacy network from the inside out."

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PROPOSED AMENDMENTS TO H.B. 6391

The amendments are set out below and are the same as proposed by Dr. Michael Norko.

1. In line [n] change the language to **require** a supplemental report of the Health Care Guardian by changing the word "may" to "shall." In line [n] the word "any" would be changed to "the" also referring to this change from a permissive to a required Health Care Guardian report.

2. In line [n] we would propose to delete the words "unwilling or" in order to eliminate the possibility of a defendant capable of providing informed consent being forced to receive unwanted medication under this mechanism.

3. Add a new section (5) detailing a periodic review every 180 days of such an order. The periodic review would be conducted in the same manner as the original review. The language of this newly suggested section is:

(5) An order for continued involuntary medication to maintain competency to stand trial entered under subsection (4) shall be reviewed by the court every 180 days while it remains in effect. At each review, the court will receive a supplemental report of the health care guardian and must find each of the enumerated criteria in subsection (4) by clear and convincing evidence in order to continue the order for involuntary medication.

JOINT
STANDING
COMMITTEE
HEARINGS

PUBLIC HEALTH

PART 12
3611-3923

2007

003665

attention of health care providers serving the population.

Falling can also play a role in people with MS also experiencing depression. A study of 1,032 veterans with MS were surveyed to determine what factors played a role in a major depressive episode. One of the factors that played a role in the presence of a major depressive episode was presence of falls in these veterans who had multiple sclerosis. This study was published in Neurology, 2005 Jan 11;64(1):75-80.

Many falls occur because people are having difficulty with ambulation which can occur as a result of chronic conditions like MS and/or aging. In my work at the National MS Society, we often hear from individuals with MS who have fallen and injured themselves. A fall impacts an individual's physical health but also can result in significantly higher health care costs. Medicaid and Medicare bear the brunt of these expenses.

The National MS Society recognizes the importance of a program like the Connecticut Collaboration for Fall Prevention. Some of the initial researchers for the CT Collaboration for Fall Prevention have also worked in the field of MS. At the MS Society, recently we have heard from people with MS who have participated in the CT Collaboration for Fall Prevention program, Step by Step. They report that their falls have been reduced. Interventions like the Connecticut Fall Prevention Program are successful in reducing falls and thus can reduce the economic and physical cost of falls.

The National Multiple Sclerosis Society supports SB 1226, An Act Establishing A Fall Prevention Program, including funding a statewide fall prevention program. Falls are an issue that requires public education and programming so that at-risk populations realize they why they are at risk and receive evidence-based advice on how to reduce those risks.

Currently the National MS Society is working on a number of advocacy issues related to long term care and home and community based services. We are partnering with groups like the Connecticut Commission on Aging, AARP, the Connecticut Association of Area Agencies on Aging, CT Association of Centers for Independent Living, Connecticut Community Care, Inc. and the Alzheimer's Association to work with the State of Connecticut including the Department of Social Services and Legislature to create improved options for services for people with disabilities and older adults.

Many of the needs that people with multiple sclerosis and other physical disabilities exhibit are similar to the needs of older adults. We ask that the legislation and the work that the Fall Prevention Program include adults of all ages who are at risk for falling.

Please pass SB1226, An Act Establishing a Fall Prevention Program.

Thank you.


Susan Raimondo
Community Programs Director
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003666

James Judge, M.D.
7 Rosewood Drive
Farmington CT 06032

March 13, 2007

Remarks to Public Health Committee
SB 1226: An Act Establishing A Fall Prevention Program

I would like to address the committee regarding the importance of a state-wide program to prevent falls. I am a geriatrician, and have three roles- I am a medical director of the Connecticut VNA- a large homecare and Hospice program. I am the medical director of Evercare in Connecticut- we provide Medicare Beneficiaries who are poor, who have chronic diseases, or who live in nursing homes with Special Needs Plans through CMS. I have been a member of the U of Connecticut Center on Aging faculty for 18 years, where my early research work was on exercise and balance.

I have worked with many frail elderly, for whom a hip fracture is the end to either independence in their mobility, or the end of their ability to live independently. I have had the privilege to work in the same state as Drs. Mary Tinetti and Dorothy Baker, who are known throughout the United States for their innovative research that has provided Practical Guidance to reduce falls for older persons living in the community.

So, Connecticut is fortunate to have some of the best people who are committed to testing and implementing practical strategies that can have a real impact on frail and older residents who want to stay independent as long as they can.

The specific value the Fall Prevention Program may bring to older Connecticut residents is clear. A clear understanding of needs, problems, and opportunity is the first step, followed by a clear agenda to provide tools and expectations to our health systems and providers. The knowledge base of research on preventing falls is sufficient to guide some of the work, but Connecticut specific data is required to implement successful program.

We now know that many falls can be prevented by developing policies and programming to identify risk factors and address these risks. On the national level, quality measures for primary care physicians caring for older patients will soon include asking about falls and assessing fall risk. These are known as the ACOVE measures. Web site: http://www.rand.org/health/projects/acove/quality_indicators.html

This is the right time to do this. One specific challenge that Connecticut elderly face- elderly cared for by home care agencies following a hospitalization have very high rates of re-hospitalization or ER visits compared to other states. Falls and fall injuries contribute substantially to this poor clinical outcome. Hospitals and Home care agencies have been recently notified that this is a major quality concern by CMS. The

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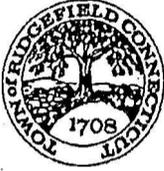
concept of patient safety at the hospital level until recently has focused on reducing "errors" in the hospital. Improving outcomes and reducing harm requires better hand-offs between hospital and post acute centers, and from the hospital back home. Reconciling medications from before the hospital stay, and preventing abnormally low blood pressure after return home are two processes that may reduce falls as a byproduct. Qualadigm, our quality partner to improve care for Medicare beneficiaries in Connecticut, is currently partnering with home care agencies and hospitals to find ways to reduce these avoidable re-hospitalizations. The Fall Prevention program could make a major contribution to this effort.

In addition, there is now compelling evidence that most frail elderly have sub-optimal levels of vitamin D, and that adequate supplementation (≥ 700 U of Vitamin D3 daily) can reduce both falls and fractures about 20 to 28% in people at risk. Vitamin D3 supplementation is safe and inexpensive –and is now available at a cost of from \$2 to \$5 a month. No pharmaceutical company will ever promote this low cost, generic supplement within the professional community. A fall prevention program could bring together medical societies, pharmacists, and home care agencies to provide strategies for the safe implementation of this supplement in the community.

I have discussed two examples of how a state wide fall prevention program can help raise the standard of care by supporting cost effective strategies to reduce falls and injuries. There are many more.

A successful fall reduction program will help the Health Systems of Connecticut, home care agencies and the practitioners caring for older persons at risk address the need and the expectation from Medicare that we do a better job. I urge you to establish this program.
Thank you.

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TOWN OF RIDGEFIELD
Fire Department

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March 1st, 2007

Heather Burford
Fire Chief
Ridgefield Fire Department
6 Catoonah Street
Ridgefield, CT 06877

Co-Chairs Senator Mary Ann Handley and Representative Peggy Sayers
Public Health Committee
Room 3000, Legislative Office Building
Hartford, CT 06106

Re: Support for funding of SB 1226: An Act Establishing A Fall Prevention Program

Dear Senator Handley, Rep. Sayers and members of the Public Health Committee,

As the Fire Chief for the Town of Ridgefield, I am asking you to recommend appropriations to support the activities in Senate Bill 1226. I will not be able to testify at the Public Hearing scheduled for Wednesday, March 14, 2007, but would like you to accept this letter as my written support in lieu of testimony.

As you are aware, the Connecticut fire service is deeply involved in providing medical care to the residents and visitors of our communities. Emergency Medical Services (EMS) account for 72% of the call volume handled by the Ridgefield Fire Department and many of those calls for service pertain to ground level falls suffered by seniors. During the month of July 2006 a staggering 30% of EMS calls were for falls or fall related injuries. The injuries we encounter and treat are often devastating to patients physically, emotionally, and financially.

As a fire chief I am charged with providing a safe community in which the residents of Ridgefield may live, work, and play. Recently while employed in the Town of Manchester I instituted a Fall-Prevention Program with tremendous success resulting in improved education to our seniors and a reduced number of EMS calls related to falls. This preventative approach coupled with funding to support the endeavor is the direction the state needs to take to begin to reduce the devastating effects of falls within our jurisdictions.

Thank you for your consideration of this important public health issue. If you have any questions or need additional information about the impact of falls on our community, please contact me at (203) 431-2727 or at rfdchief@ridgefieldct.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Heather L. Burford".

Heather L. Burford

Cc: Senator Judith Freedman

www.ridgefieldct.org

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Testimony on SB 1226 by C.E. Bower
14 March 2007

My sisters and I insisted on further blood tests. The tests revealed that she was not absorbing dietary iron, and though her hematocrit and hemoglobin values, the most commonly measured indicators of anemia, were near normal, her iron stores (measured as *ferritin*, which rarely if ever is measured in elderly persons) were almost totally depleted.³

Following a series of intravenous iron infusions, her condition has improved dramatically, both physically and mentally. She is like a new person, who can now walk without assistance, has surpassed her former energy level, and says she even "thinks more clearly." Best of all, she has regained her *joie de vivre* and sense of dignity, and recently she felt well enough to travel to Houston to celebrate her great grandson's fifth birthday.

There are, of course, many reasons and risk factors other than anemia for falls among the elderly. Some are easily overlooked, such as a decorative throw rug, an ill-fitting pair of shoes, a medication's side effects, or poor vision. According to a recent survey, only 20% of physicians take fall histories from their patients, and 70% do not feel they have a comprehensive understanding of falls among the elderly. Many health care providers do not know how to perform risk assessments for falls, and they are not familiar with strategies for fall prevention.⁴

Most elderly people are not as fortunate as my mother. They do not have children who are educated health professionals and strong advocates for their health.

For these reasons, I believe that one of the Connecticut Legislature's highest priorities must be to protect one of our state's most valuable resources--our elderly residents--by establishing a comprehensive fall prevention program that includes all the features listed in SB 1226.

Thank you for your consideration of this most critical health issue.

Respectfully,



Carol E. Bower

References and Notes:

- ¹ Roos, LL, RK Walld, PS Romano, and S Roberecki. Short-term mortality after repair of hip fracture. *Medical Care* 1996; 34(4):310-326.
- ² Beers, MH, Editor. Hip Fractures. Chapter 23 in *The Merck Manual of Health and Aging*. Merck Research Laboratories, 2004.
- ³ Although anemia is common among the elderly, its specific underlying cause (iron deficiency, vitamin B12 or folic acid deficiency, gastrointestinal bleeding, iron malabsorption, certain infections or chronic diseases, etc.) rarely is diagnosed and addressed. More importantly, anemia can have exactly the same symptoms as "frailty" of old age, including fatigue and loss of equilibrium; hence, anemia may be an unrecognized cause of falls among the elderly. I recently sent a letter to the Editor of the prestigious *Journal of the American Medical Association* about this; the subject was considered important enough that my letter has been accepted for publication and will appear in *JAMA* later this spring.
- ⁴ Royal Australasian College of Physicians. Falls Prevention Workforce Survey. 2004. Accessed 3/12/2007 at <http://www.fallsprevention.org.au/survey.cfm>.