

Forcible Treatment with Post-exposure Prophylaxis in a Psychotic Patient Exposed to HIV

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Case

Mr. "A" is a 28 year old male with psychosis brought to the emergency department by police after he had called them and reported having an unprotected consensual sexual encounter the previous evening with an HIV-positive homeless woman. He told officers that he "could feel the AIDS creeping into his body." During the phone conversation with the police, he spoke about paranoid delusions of people following him and trying to kill him. He went on to describe delusions about becoming a professional sports player and why he needed to get in contact with the university's head coach before reports of his AIDS became "a media nightmare."

He also described religious delusions in which he believed that he spoke with God directly and had 3 premonitions earlier in the week about contracting AIDS. In the emergency department, he stated that he could feel the AIDS virus in his body moving around causing him to be weak. Initial labs were unremarkable and a urine drug screen was negative. The police confirmed that the woman from the sexual encounter was indeed HIV-positive. This was based on their previous knowledge of her for unclear reasons.

He was transferred to the psychiatric hospital assessment unit for evaluation. At this time, the patient denied having a mental illness and repeatedly declined to answer any further questions.

However, he reported persecutory delusions that someone was contacting the hospital "telling lies" about him and how "a member of the Illuminati" was out to get him. His physicians, including a psychiatry resident and later an infectious disease consultant, gathered more history from him. He became increasingly guarded and stated that he no longer needed assistance from the hospital and that earlier he had felt physically ill, but was not feeling that way anymore.

His mental status exam revealed an alert and minimally cooperative male with fair hygiene, dressed casually, with a tangential thought flow, paranoid and religious delusions, bizarre abstraction, poor insight and impaired judgment and possible tactile hallucinations of the "AIDS virus" in his body. He was involuntarily admitted to the psychiatric hospital due to psychosis and an inability to care for himself and was started on an antipsychotic, risperidone, and HIV post-exposure prophylaxis for 30 days per the infectious disease consult recommendations. On admission to the psychiatric unit, it had been less than 24 hours since the sexual encounter.

The following day, he reported that he was doing much better. He continued to resist treatment of any type and continued to report that someone gave false information to the hospital and sent him here, and he wanted to file a grievance about it. He did not believe that he had a mental illness and denied needing any medications. He recanted his statements about having contracted HIV. He said that he was just having some stomach pains and nausea and that it was the flu. He refused post-exposure prophylaxis. He took some doses of the risperidone, but then eventually refused to take all

medications two to three days later. This was past the treatment window for HIV post-exposure prophylaxis.

Discussion

The involuntary treatment of humans has historically stirred controversy—none illustrates this better than Gosney and Popenoe's (1929) "scientific" rationalization that forced surgical sterilization was necessary for human betterment, preventing "race degeneracy", and further arguing that the procedure was a "protection, not a penalty".¹ The Nazis later used these "scientific" arguments to systematically wipe out millions of Jews, homosexuals and disabled "deviants."

In the wake of the atrocities of World War II and the advent of effective psychotropic medications, numerous experts, ethicists, publications, and legislative bodies have weighed in on the topic of involuntary hospitalization. It has largely been argued in the U.S. through carefully crafted legislation and professional organization guidelines outlining patient requirements for, and outlining steps to enact, involuntary hospitalization^{2,3}. The legislation varies from state to state and the clinician guidelines vary from organization to organization, though they share general themes^{4,5}. Generally, a person may be involuntarily hospitalized if 1) that person is mentally ill and 2) that person is a danger to him/herself or others. This standard has been upheld numerous times by the U.S. Supreme Court⁶⁻⁸.

Once a person has been hospitalized, another—and possibly more disagreeable—question may arise. If the involuntarily hospitalized patient refuses treatment, what is the best course of action? As with involuntary hospitalization, the U.S. courts have given much consideration to this issue. In 1978, *Rennie v. Klein* established the constitutional right of involuntarily hospitalized patients to refuse medication.⁹ The following year another case, *Rogers v. Commissioner*, established that involuntarily hospitalized patients have the right to refuse treatment in non-emergency situations.¹⁰ Again, the Court's stance affirmed a patient's autonomy in their medical decision-making. Less well defined are the involuntarily hospitalized patient's rights during a medical emergency.

The case of Mr. A highlights such a situation where the ethical, legal, and medical lines were blurred. He repeatedly refused both HIV prophylaxis and antipsychotic medication. Initially, no collateral contacts could be found for the patient. We next analyze the question in this instance of whether consensual HIV exposure from a woman to a man during a single penile-vaginal intercourse encounter constitutes a medical emergency and should therefore be forcibly treated.

One course of action would be to initiate state court competency proceedings^{2,3} on the patient's behalf and let the court decide the course of action. However, given the narrow window of HIV prophylaxis efficacy, it is likely that court proceedings would delay treatment outside of the window of efficacy. Accordingly, physicians could argue that this instance creates an emergency situation and an exception to the patient's right to refuse treatment.

Lacking a consensus definition for "medical emergency," this

paper chooses to use the definition given by the Emergency Medical Treatment and Labor Act (EMTALA). This Act outlines hospital treatment guidelines regarding medical emergencies. The EMTALA defines a medical emergency as:

...a medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain) such that the absence of immediate medical attention could reasonably be expected to result in—

- (i) placing the health of the individual (or, with respect to a pregnant woman, the health of the woman or her unborn child) in serious jeopardy,
- (ii) serious impairment to bodily functions, or
- (iii) serious dysfunction of any bodily organ or part

A substantial argument can be made that HIV exposure could be reasonably expected to fulfill all three subsections of the EMTALA definition. But despite the likelihood of future harm resulting from not initiating HIV prophylaxis, a physician may still be wary of that course of action for fear of further alienating the patient and the future lawsuits associated with forcible treatment.

To our knowledge, no other case report or legal proceeding was found to have similar facts. Therefore, there is no legal precedence for any treatment plan that included forcible HIV prophylaxis. However, an analogous situation arises in the administration of tissue plasminogen activator (tPA) in stroke victims. When meeting specific guidelines following ischemic stroke, tPA is given as thrombolytic therapy.¹² Administration of tPA can, and has, occurred in circumstances of incapacitation (secondary to the stroke) under a theory of implied consent.¹³ And tPA, like HIV prophylaxis, has a time-sensitive window of efficacy.¹³ Numerous reviews have been conducted over the medico-legal aspects of tPA. These reviews have consistently found that physicians are more often found liable for *not* treating with tPA than for treating with tPA.¹⁴⁻¹⁶

Considerations of the Case

Wawer et al estimated the rate of heterosexual HIV-1 transmission to be approximately .0012% per coital act in heterosexual couples.¹⁷ While there is a slight variation in transmission dependent on the stage of infection, the rate of transmission in all instances is exceedingly low from a single coital act and even lower in those that receive post-exposure prophylaxis within 72 hours of coming into contact with the virus. Perhaps the best evidence for the efficacy of post-exposure prophylaxis comes from a study in which health-care workers who endured a needle stick and exposure to HIV received zidovudine prophylactically¹⁸. Zidovudine treatment was correlated with an 81% decrease in the risk of acquiring HIV-1¹⁹. Possibly more applicable to our case, is a study of female sexual assault survivors exposed to HIV-1 in Sao Paulo, Brazil, who were treated with zidovudine, lamivudine, or a combination of zidovudine, lamivudine, and indinavir within 72 hours of exposure. Of 180 women treated within the 72 hour window, none of them seroconverted. 145 women in the same study did not receive treatment for various reasons. Of these women, 2.7% seroconverted²⁰.

Given the robust, proven efficacy of post-exposure prophylaxis, the ethical dilemma of forcing treatment upon the patient was considered in light of the very low rate of transmission after a single sexual act as well as the potential harm from these medications. There do not appear to be any severe side effects or toxicities from anti-retroviral therapy commonly used in post-exposure prophylaxis regimens²¹, however some of the common side effects such as nausea and vomiting, fatigue, and an urticarial rash²¹ can be debilitating in the short term and may lead to decreased compliance. Poor compliance was a significant concern in our case considering our patient did not adhere to his antipsychotic regimen. *Dolder, et al.* studied anti-diabetic, anti-hypertensive, and anti-lipidemic medication adherence among middle-aged patients with schizophrenia and other psychotic disorders. They found adherence to these drugs to be problematic in this population. In fact, they found that patients were equally non-compliant with anti-psychotics as they were these other medications²². We felt it reasonable to assume that Mr. A's poor adherence to his antipsychotic medications indeed made it less likely that he would comply with an HIV post-exposure prophylaxis regimen. Additionally, the CDC recommends testing for seroconversion at 4-6 weeks after exposure, 3 months after exposure, and 6 months after exposure¹⁸. Again, there was serious question as to whether our patient would comply with serial testing which would allow us to determine whether he needed further treatment.

An additional consideration in this case, is the possibility of inducing resistance of the HIV strain by starting the patient on post-exposure prophylaxis with the knowledge of the likelihood of poor compliance for the duration of the 30 day regimen. According to CDC recommendations on post-exposure prophylaxis, there have been rare instances of treatment failure, where the individual seroconverts despite optimal treatment. In these cases, they state that "selection of resistant virus by the antiretroviral drugs is theoretically possible." However, there is currently insufficient data compiled to suggest whether this actually occurs.¹⁸ In the case of Mr. A, poor compliance is a significant factor. The abrupt interruption of antiretroviral therapy can lead to drug resistance of the HIV infection. Poor compliance with post-exposure prophylaxis might not only lead to successful transmission of the virus, but subsequent drug resistance of this virus, leading to difficulty in management of his disease and even the possibility of his exposure to others of a more resistant strain.

Finally, from a practical standpoint, post-exposure prophylaxis therapy is only available as an oral formulation. There is no parenteral route of administration, which is often the preferred route to administer a drug to a patient involuntarily.

Arguments for involuntary treatment

Physicians have a responsibility to act in a beneficent manner towards their patient. The Code of Medical Ethics states that "a physician is ethically required to use sound medical judgment, holding the best interests of the patient as paramount."²³ Communication with each patient is crucial to fully provide the competent patient with the necessary information for them to make an informed decision. In the event that they cannot make that decision due to lack of capacity, and in the absence of a

surrogate decision-maker, the physician is expected to act in the best interest of the patient. Given that the patient had a sexual encounter with an HIV-positive woman and was within the time frame for treatment with post-exposure prophylaxis, it could be argued that the best interest of the patient would be for the physician to treat him involuntarily, both with antipsychotic and post-exposure prophylaxis therapy, to prevent him from acquiring an HIV infection.

However, it is critically important to consider the time sensitive aspect of this case. Post-exposure prophylaxis is recommended to be started within 72 hours of exposure to the virus. In the setting of a different comorbid illness, such as hypertension, for example, the strategy of treating the psychosis first and addressing administration of the antihypertensive medication later is a viable option. That strategy in this case is not as clearly defined, as the first dose must be given in a 72-hour window. It is unlikely that the patient would regain competency in a short period of time such as to make an informed decision about the post-exposure prophylaxis.

Arguments for not treating

Different arguments could be made in this situation from the same principle of acting in the best interest of the patient. In the previous discussion, the best interest of the patient was doing everything possible to prevent the transmission of the HIV infection. However, given the consideration of the small likelihood of HIV transmission from an affected female to a male partner following a single coital act, the question becomes whether post-exposure prophylaxis is really necessary. As with all medications, the side effect profile, although usually minimal with regards to prophylaxis medications, does present a potential impact on the patient's quality of life. Additionally, consideration must be made of the HIV virus's potential to mutate in response to anti-viral therapy, combined with the high likelihood of poor adherence to the full 30 day regimen. Therefore, forcing the post-exposure prophylaxis would be doing Mr. A a disservice, if the HIV transmission is successful, and leads to a resistant form of the virus. If this were the case, there would be increased morbidity in managing his infection in the future. In light of the small likelihood of transmission without post-exposure prophylaxis, the question lies in whether the minimal benefits of the medication outweighs the harms it could cause.

In this instance, will a physician making a decision such as this be doing so for the sole best interest of the patient? A non-compliant patient with schizophrenia who has an HIV infection presents a future financial burden of HIV-associated care and the public health concern that he will infect others. The Code of Medical Ethics states that "the primary consideration should be what is best for the individual patient and not the avoidance of a burden to the family or to society."²³

Is administering this treatment in the best interest of the patient, when they might otherwise disagree based on a number of possible wisely considered objections. (i.e. the potential side effects are often enough to deter a fully competent patient)? This therapy must be taken for 30 days to ensure adequate treatment. Perhaps

this patient would deem their quality of life for the next month a higher priority than their future HIV status, which will likely not affect them considerably for several years following transmission. Especially when considering that the vast majority of cases such as this, where a single coital act occurs between an HIV positive female and an unaffected male, result in no transmission of the disease, forcing a treatment with side effects for a month may, in itself, cause undue risk and suffering.

Finally, patient autonomy is something to be respected. Although this patient was in an incapacitated mental state, Mr. A was not presenting a significant harm to himself and made no threats towards others at the present moment. Perhaps a future HIV infection could be construed as a significant harm, however, assuming it would be transmitted to the patient, it would not lead to significant health problems for several years.

This paper addresses the question, "Is it ever appropriate to involuntarily treat a patient who clearly states he does not want to be treated, for a diagnosis with so small a likelihood of transmission and a several year delay in significant harm?" Despite the overall assessment of being in a psychotic state from his comorbid schizophrenia, we argue that the patient has the right to refuse HIV post-exposure prophylaxis, and that from an ethical standpoint, the treating physicians were appropriate in not forcibly treating him with these medications.

Resources

- Gosney ES, Paul Popenoe. Sterilization for Human Betterment. 1929. New York: The Macmillan Company
- Testa M, West SG. Civil Commitment in the United States. *Psychiatry*. 2010; 7(10): 30-40
- Ralph Reisner, Christopher Slobogin, and Arti Rai, *Law and the Mental Health System: Civil and Criminal Aspects* (2009), pp. 704-705.
- <http://mentalillnesspolicy.org/studies/state-standards-involuntary-treatment.html>
- http://treatmentadvocacycenter.org/storage/documents/Emergency_Hospitalization_for_Evaluation.pdf
- Foucha v. Louisiana*, 504 U.S. 71 (1992)
- Kansas v. Crane* 122 S.Ct. 867 (2002)
- O'Connor v. Donaldson*, 422 U.S. 563 (1975)
- Rennie v. Klein* 462 F. SUPP. 1131 (D.N.J. 1978), SUPPL., 476 F. SUPP. 1294 (D.N.J. 1979), MODIFIED, 653 F.2D 836 (3D CIR. 1981), VACATED AND REMANDED, 458 U.S. 1119(1982), ON REMAND, 720 F.2D 266 (3D CIR.1983)
- ROGERS V. OKIN* 478 F.SUPP.1342(D.MASS.1979), 634 F.2D 650(1ST CIR.1980); *MILLS V. ROGERS* 457U.S.291(1982); *ROGERS V. COMMISSIONER OF MENTAL HEALTH*, 390 MASS.489, 458 N.E.2D 308 (1982)
- 42 U.S. Code § 1395dd - Examination and treatment for emergency medical conditions and women in labor
- De Keyser J, Gdovinova Z, et. al. Intravenous Alteplase for Stroke ,Beyond the Guidelines and in Particular Clinical Situations. *Stroke*. 2007; 38: 2612-2618
- Rincon F. Emergency Management of Acute Ischemic Stroke in Incapacitated Patients Who Have No Surrogate Decision Makers. *Continuum Lifelong Learning Neurol*. 2011; 17(6): 1335-1339
- Bruce NT, Neil WP, Zivin JA. Medico-Legal Aspects of Using Tissue Plasminogen Activator in Acute Ischemic Stroke. *Curr Treat Options Cardiovasc Med*. 2011; 13(3): 233-239
- Liang BA, Zivin JA. Empirical Characteristics of Litigation Involving Tissue Plasminogen Activator and Ischemic Stroke. *Ann EmergMed*. 2007; 53(3): 4004-405
- Thiess DE, Sattin JA, Larriviere DG. Hot topics in risk management in neurologic practice. *Neurol Clin*. 2010;28:429-439
- Wawer MJ1, Gray RH, Sewankambo NK, Serwadda D, Li X, Laeyendecker O, Kiwanuka N, Kigozi G, Kiddugavu M, Lutalo T, Nalugoda F, Wabwire-Mangen F, Meehan MP, Quinn TC. Rates of HIV-1 transmission per coital act, by stage of HIV-1 infection, in Rakai, Uganda. *J Infect Dis*. 2005 May 1;191(9):1403-9. Epub 2005 Mar 30.
- <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5402a1.htm>
- Cardo DM, Culver DH, Ciesielski CA, et al. A case-control study of HIV seroconversion in health care workers after percutaneous exposure. *N Engl J Med* 1997;337:1485--90.
- Drezett J. Post-exposure prophylaxis in raped women. In: IV International Conference on HIV infection in women and children. Rio de Janeiro: Livro de Resumos. Universidade, Federal do Rio De Janeiro e Institute of Virology of Maryland; 2002.
- Parkin JM, Murphy M, Anderson J, El-Gadi S, Forster G, Pinching AJ. Tolerability and side-effects of post-exposure prophylaxis for HIV infection. *Lancet*. 2000 Feb 26;355(9205):722-3.
- Dolder, Christian R. PharmD; Lacro, Jonathan P. PharmD, and; Jeste, Dilip V. MD. Adherence to Antipsychotic and Nonpsychiatric Medications in Middle-Aged and Older Patients With Psychotic Disorders. *Psychosomatic Medicine*. 65 (1) 156-162. January/February 2003.
- Code of Medical Ethics of the American Medical Association (2014-2015 edition)

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