abusive misuse, and psychotomimetic side effects.[4] In the cases described herein, we suggest that rapid infusion of *S*-(+)-ketamine may offer less tolerability compared to the racemic formulation. However, the infusion rate used to treat these patients may explain, at least in part, the poor tolerability observed. Therefore, we maintain that ketamine administration should only be performed in the inpatient setting, with supporting services and monitoring available,[5] using a slow infusion over at least 40 minutes.

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References

1 Segmiller F, Rüther T, Linhardt A, Padberg F, Berger M, Pogarell O, et al. Repeated S-ketamine infusions in therapy resistant depression: a case series. J Clin Pharmacol. 2013;53:996-8.
2 Fond G, Loundou A, Rabu C, Macgregor A, Lançon C, Brittner M, et al. Ketamine administration in depressive disorders: a systematic review and meta-analysis. Psychopharmacology (Berl). 2014;231: 3663-76.
3 Bryant RA, Friedman MJ, Spiegel D, Ursano R, Strain J. A review of acute stress disorder in DSM-5. Depress Anxiety. 2010;28:802-17.
4 Naughton M, Clarke G, O'Leary OF, Cryan JF, Dinan TG. A review of ketamine in affective disorders: current evidence of clinical efficacy, limitations of use and pre-clinical evidence on proposed mechanisms of action. J Affect Disord. 2014;156:24-35.
5 McGirr A, Berlim MT, Bond DJ, Fleck MP, Yatham LN, Lam RW. A systematic review and meta-analysis of randomized, double-blind, placebo-controlled trials of ketamine in the rapid treatment of major depressive episodes. Psychol Med. 2015;45:693-704.

An index to examine the sexual HIV risk of psychiatric service users based on sexual partners

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Numerous studies report higher HIV infection rates among psychiatric patients than in the general population.[1] Relative to other HIV-affected populations, they have higher rates of HIV-related risk behaviors in fewer sexual occasions, including multiple partners, partners of unknown or positive HIV status, sex in exchange for money, shelter or goods, and low condom use rates.[2] We present a new HIV risk index (RI)[3] that takes into account differential risk associated with these factors.

Anal/vaginal receptive sex is riskier than insertive practices. Sex acts with partners of unknown/positive HIV status are riskier than those with HIV-negative partners, regardless of partner type.[4] Lastly, sex acts with steady, casual, and exchange partners are associated with different HIV risk.[5]

Our RI assigns differential risk to each sex act and sums risk across sex acts. The differential risk consists of three risk coefficients: 1) partner (type and HIV status); 2) vaginal sex (insertive or receptive) per sex occasion; and 3) anal sex (insertive or receptive) per sex occasion. Risk coefficients for vaginal/anal directionality are based on CDC transmission risk values,[6] while coefficients proposed for partner type were determined on the basis of expert opinion and face validity (Table 1).

RI is estimated for each sex partner (RI_n); the sum of all RI_n corresponds to the total RI score. We provide three examples to demonstrate the new RI in comparison to focusing only on condomless sex proportions.

Example 1. A man had four anal sex acts, one insertive and three receptive, all condomless, with a casual male HIV-unknown partner. Taking into account the three risk coefficients, this person would have an RI = 0.90*(0.11*1 + 1.38*3) = 3.83. Based solely on the proportion of condomless sex occasions, this person's risk would be classified as 100%.

Example 2. A man had three vaginally insertive acts, all condomless, with a casual HIV-negative partner. This person would have an RI = 0.10*(0.04*3) = 0.01. His risk

Table 1 Risk coefficients by sex partner type and HIV status, sex occasions

Sex partner RC		
Partner type*/HIV status	Heterosexual	MSM
Steady		
Positive	1.00	1.00
Negative	0.01	0.01
Unknown	0.50	0.50
Casual		1.00
Positive	1.00	
Negative	0.10	0.10
Unknown	0.75	0.90
Exchange	1.00	1.00
Positive		
Negative	0.25	0.25
Unknown	0.90	0.90
Sex occasions RC†		
	Vaginal-RC	Anal-RC
Receptive	0.08	1.38
Insertive	0.04	0.11

RI formula: RI_n (Partner N) = RC [Partner type and HIV status] *(RC[vaginal sex] *number of condomless vaginal acts + RC[anal sex] *number of condomless anal acts)
MSM = men who have sex with men; RC = risk coefficient; RI = risk index.
* Steady partner: someone participants think of as a steady or main partner (spouse, girlfriend/boyfriend, lover, fiancée); casual partner: someone participants had sex with for love or fun, but did not think of as a main or steady partner; exchange partner: someone participants had sex with in exchange for something (money, drugs, alcohol, cigarettes, a place to sleep), whether the transaction was clearly negotiated or implied.
† Sex occasions risk coefficients are based on epidemiological data provided by CDC.[6]

classification based on the proportion of condomless sex occasions is 100%, which would not distinguish him meaningfully from the man in Example 1.

Example 3. A woman had sex with two male partners, steady HIV-negative and exchange HIV-unknown. The one sex occasion with the steady partner was condomless; with the exchange partner, she had seven sex occasions, of which one was condomless vaginal and three were condomless anal (total sex occasions = 8; condomless sex occasions = 5). Thus, RI_1 (Partner 1) = 0.01*(0.08*1) = 0.001; RI_2 (Partner 2) = 0.90*(0.01*1 + 1.38*3) = 3.74; RI_{Total} = 0.001 + 3.74 = 3.74. The proportion of condomless sex occasions would be 62.5%. Relative to Example 1, the RI shows this person's risk approximating his, though the proportion of condomless occasions shows her to be at considerably less risk.

Using our RI, possible misclassifications of risk based solely on the proportion of condomless sex occasions were identified. RI offers greater precision in estimating risk within psychiatric and potentially other populations now that Brazil is considering pre-exposure prophylaxis (PrEP – PrEPBrasil.com.br) for those at high risk. Additional behavioral and infection rate data are needed to further differentiate and validate high risk.

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References

1 Hughes E, Bassi S, Gilbody S, Bland M, Martin F. Prevalence of HIV, hepatitis B, and hepatitis C in people with severe mental illness: a systematic review and meta-analysis. Lancet Psychiatry. 2016;3:40-8.
2 Campos LN, Guimarães MD, Carmo RA, Melo AP, Oliveira HN, Elkington K, et al. HIV, syphilis, and hepatitis B and C prevalence among patients with mental illness: a review of the literature. Cad Saude Publica. 2008;24:s607-20.
3 Guimarães MDC, Rocha GM, Kerr LRFS, Brito AM, Dourado I. Risk behavior score for HIV based on unprotected anal sex and multiple sexual partnerships among men who have sex with men (MSM) in Brazil. In: 20th International AIDS Conference; 2014 July 20-25; Melbourne, Australia. Poster Exhibition # THPE149.
4 Peterman TA, Lin LS, Newman DR, Kamb ML, Bolan Gail, Zenilman J, et al. Does measured behavior reflect STD risk? An analysis of data from a randomized controlled behavioral intervention study. Project Respect Study Group. Sex Transm Dis. 2000;27:446-51.
5 Varghese B, Maher JE, Peterman TA, Branson BM, Steketee RW. Reducing the risk of sexual HIV transmission: quantifying the per-act risk for HIV on the basis of choice of partner, sex act, and condom use. Sex Transm Dis. 2002;29:38-43.
6 Centers for Disease Control and Prevention. HIV risk behaviors [Internet]. [cited 2017 Apr 06] cdc.gov/hiv/risk/estimates/riskbehaviors.html.

Current inpatient prescription practices for the treatment of schizophrenia in public hospitals of Minas Gerais, Brazil

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Schizophrenia is a chronic disorder with high potential to incapacitate patients for social life and participation in the workforce. The continuous use of antipsychotics has enabled a reduction in length of hospital stay and in number of relapses, allowing patients to remain in the community for longer. As a consequence, economic costs and burden are reduced. The choice of antipsychotic agent potentially affects clinical outcomes.[1]

In the context of the public health system of the state of Minas Gerais, Brazil, hospital treatment of schizophrenia is currently directed to the management of relapses, usually consisting of short-term hospitalizations followed by referral to outpatient care.[2] Since research on current pharmacotherapy of schizophrenia in Brazil is scarce, our study aims to describe prescription patterns for schizophrenia in the setting of public hospital care.

The study sample comprised 1,928 patients admitted for schizophrenia to three public psychiatric hospitals in Minas Gerais (Instituto Raul Soares, Hospital Galba Velloso, and Centro Hospitalar Psiquiátrico de Barbacena) between 2010-2014. In these hospitals, both typical and atypical antipsychotic agents were routinely available for inpatients. However, the prescription of atypicals required additional paperwork and their continuation after discharge was possible, but not advocated.[3] To analyze psychopharmaceutical prescribing practices in this sample, we conducted a detailed analysis of patients' prescriptions on the day before their discharge from hospital.

Typical antipsychotics (haloperidol, chlorpromazine, thioridazine, levomepromazine, trifluoperazine) were the most frequently prescribed drugs; among the atypicals, risperidone was preferred. Similar results were found by Machado et al.[4] in their study, conducted in the emergency department of a Brazilian public general hospital in the state of Paraná. (We were unable to find other reports of a similar nature in the literature.) Atypical antipsychotics are considered first-line choices by some,[5,6] but not all,[7] clinical guidelines, and there is a sustained debate on their economic advantages in developing countries.[8] Although clozapine has proven useful in reducing readmission risks in schizophrenia,[9] it was used in only 4.2% of admissions in our sample, a prevalence lower than that reported internationally (8-25%).[10,11]