PRACTICE RESOURCE FOR PRESCRIBING IN CORRECTIONS

Graham Glancy, MB, ChB

Todd Tomita, MD

Jeff Waldman, MD

Kiran Patel, MBBS

Brad Booth, MD

Colin Cameron, MDCM

Samuel Iskander, MD

Rakesh Lamba, MBBS

Hygiea Casiano, MD

Brian Chaze, MD

This document is based on the
American Academy of Psychiatry and the Law Practice Resource for Prescribing in Corrections.

Original document authored by:

Anthony Tamburello, MD
Jeffrey Metzner, MD
Elizabeth Fergusen, MD
Michael Champion, MD, CCHP
Elizabeth Ford, MD
Graham Glancy, MD
Kenneth Appelbaum, MD
Joseph Penn, MD, CCHP
Kathryn Burns, MD
Jason Ourada, MD

Acknowledgements:

The American Academy of Psychiatry and the Law acknowledges contributions to this document from Steven Berger, MD; Nickolas Culpepper, MD; Jose Hidalgo, MD; Jerry McKee, PharmD, BCPP; and Hal S. Wortzel, MD.

Consultation and Review by:

Jeffrey S. Janofsky, MD; Medical Director, AAPL

The Canadian Academy of Psychiatry and the Law corrections subcommittee would like to acknowledge Ms. Katie Hardy and the staff of the Canadian Psychiatric Association for their help in producing this guideline. We would also like to acknowledge Ms. Marissa Heintzman for her help in proofreading the document. In addition, we would like to acknowledge those hardy psychiatrists who have worked away in corrections for many years with little support and recognition. Hopefully, this document will make your lives easier.

Translation of this document was made possible with the assistance of Correctional Service Canada.

Date authored:	August 12, 2019
Date approved by CAPL Board:	October 30, 2019
Review date:	2024
Copyeditor:	Eryn Kirkwood
Graphic Designer:	Elizabeth Payne

TABLE OF CONTENTS

1. STATEMENT OF INTENT

This practice resource is intended to give guidance and assistance in the provision of psychiatric treatment, with specific reference to psychopharmacology in correctional facilities. It was initially developed by correctional psychiatrists from the American Academy of Psychiatry and the Law with various backgrounds, including clinical administration, system consultations, research, teaching, and direct patient care for inmate patients. Some contributors are actively involved in administration, oversight, and academic endeavours related to psychiatric prescribing in jails and prisons. The process of developing this document incorporated a thorough review that integrated feedback and revisions into the final draft.

This practice resource was reviewed and approved by the Council of the American Academy of Psychiatry and the Law (AAPL) on May 21, 2017. It has been modified and adapted for the Canadian context by Canadian correctional psychiatrists from the Canadian Academy of Psychiatry and the Law (CAPL) correctional subcommittee, with permission from the original authors and the council of AAPL. A key difference between the original AAPL document and the Canadian adaptation is the omission of many of the evidence-based prescribing practice reviews for specific psychiatric disorders. The Canadianized practice resource document limits itself to those disorders where correctional context specific considerations and adaptations are especially required vis-à-vis evidence-based community treatment guidelines. This modified Canadian adaptation of the AAPL Practice Resource for Prescribing in Corrections was approved by the CAPL Board on October 30, 2019.

This practice resource reflects a consensus among members and experts about the principles and practice of prescribing psychiatric medications in correctional settings. While recommendations are sometimes articulated when backed by research evidence, ethical standards, or expert opinion, this document should not be construed as dictating the standard of care. Rather, it is intended to inform practice in this area. Practice guidelines published more than five years ago may require updating and are not considered current by the National Institute of Medicine.[1,2] However, this document may cite sections of such practice guidelines when deemed to be still current, relevant, and applicable to correctional practice. Legal cases cited are jurisdiction-specific, and the reader is advised to be aware of local laws and regulations.

This practice resource does not present all acceptable current ways of performing psychiatric assessment and treatment. Differing clinical factors, relevant institutional policies, and the psychiatrist's judgement determine how to proceed in individual clinical scenarios. The parameters discussed are not intended to represent all acceptable, current, or future methods of evaluating patients in correctional facilities for medical or mental health disorders or drawing conclusions about the appropriate psychiatric treatment. This practice resource is directed toward psychiatrists and other clinicians who are working in a clinical role in conducting evaluations and providing recommendations related to the treatment of mental disorders in a correctional setting. The terms "psychiatrist," "psychiatric provider," and "prescriber" are used interchangeably, though are intended to refer to a professional authorized to provide psychiatric services, including the prescription of psychotropic medications, in a correctional facility (including primary care physicians, other physicians, and nurse practitioners). It is expected that any clinician who agrees to engage in psychiatric assessment and treatment in these settings has appropriate qualifications. For the purposes of this document, we use the term *patient* for any inmate who has been accepted for care or consultation by the prescriber.

2. INTRODUCTION AND LEGAL FRAMEWORK

Seriously mentally ill people are overrepresented in correctional facilities, with rates in incarcerated people ranging from 9% to 20%.[3] The consequences of not detecting and treating serious mental illness are well documented. Over-diagnosis and unnecessary treatment have their own negative consequences and need particular attention in a custodial setting, where patients may have higher motivation to divert and abuse medications or obtain special consideration due to perceived illness. Unnecessary use of psychopharmacology introduces potential harm to the patient themselves as well as to the therapeutic milieu. Accurate, optimal, and judicious assessment, as well as rational pharmacological treatment, are as important in custodial as in primary settings.

Psychiatrists working to provide optimal care in jails and prisons face numerous challenges. In these settings, operational safety and security concerns often take precedence over the delivery of routine health care services. Confidentiality may be limited, whether by law, regulation, policy, or the close proximity of correctional officers, suggesting a reformulation of ethics.[4]

Inmate factors, such as a high rate of personality disorders[5] and malingering,[5–7] which can overlap with true and significant mental illness,[8] further complicate assessment and treatment. Medication misuse and diversion are also significant concerns in a correctional context. Psychiatrists working in jails and prisons must cope with operational limitations not seen in community inpatient or outpatient settings, such as formulary restrictions, structured times for medication administration, scheduled inmate movements, and unscheduled security lockdowns. When correctional policies and procedures affect the quality of psychiatric treatment for patients with serious mental illness, those pursuing change may encounter resistance.

The goal of this practice resource is to provide a tool for psychiatrists and others prescribing psychiatric medications in correctional facilities. It summarizes the best available

evidence for treating mental health problems in inmates or applies guidelines or practice resources intended for the general treatment of mental disorders to the context of correctional settings. When no evidence specific to inmates is available, expert consensus is employed and is clearly designated as such.

3. HEALTH CARE OPERATIONS RELATED TO MEDICATION IN CORRECTIONAL INSTITUTIONS

3.1 Medication Administration

Ensuring that the right medication is correctly administered to the right patient at the right time within a correctional facility is a challenging and complex process that involves coordinated efforts by medical, mental health, nursing, pharmacy, and custody staff. This section focuses on the essential components of medication delivery, which involve the dispensing and distribution of prescribed medications without interruptions.[1]

Psychotropic medications in correctional settings are typically administered by nursing staff individually to each patient on a dose-by-dose basis (i.e., directly observed therapy, or DOT). Psychotropic medications are usually not "keep on person" (KOP) (i.e., self-administered) due to adherence issues, as well as concerns regarding misuse, including hoarding for purposes of self-harm and diversion (see also sections 4.8 Medication Non-Adherence and 4.9 Misuse and Diversion of Psychotropic Medication). Self-administered medications, particularly by weekly cards, may vary with the type of medication, the particular institution, and the level of security. The prescriber must be aware of the situation and specify a certain mode of administration when this is felt to be important. The rationale for not maintaining the standard of DOT for psychotropic medication should be documented.

Prescribers must be aware of the routines and practice for medication dispensing for the particular institution and the unit in which the patient is currently placed. This should then be matched to the most appropriate dosing schedule of the medication being prescribed. For example, medications that are appropriate for administration on a once-per-day basis are usually prescribed in that manner unless divided doses are clinically appropriate. When bedtime medication is clinically indicated, it is appropriate for the nightly medication line to occur after 8:00 PM or, where permissible, as a KOP carry for self-administration.

In light of concerns regarding the misuse of medication in correctional facilities, medications are often ordered by either prescriber or by institutional policy to be crushed by the nurse and administered in liquid, apple sauce, or pudding (i.e., "floated") to minimize the risk of "cheeking" or "palming" the medication by the inmate for later use or diversion. Crushing tablets is always time consuming for nursing staff and may alter the pharmacokinetics of the medicine, increase the risk of adverse drug reactions, pose a danger to the nurse exposed to the particles, and be contraindicated by the manufacturer.[9] Although serious harm from this practice has rarely been described, we suggest that prescribers and institutions consult with a pharmacist prior to instructing a nurse to alter the form of the medication.[10] If a liquid or dissolvable form of the medication is available, these may be reasonable alternatives to "crush and float." When possible, prescribers may ask institutional pharmacies to compound medications to make them available in quick-dissolve or liquid form.

Prescribers need to be familiar with the facility's policies and practices relevant to medication administration, as well as the patient's programming assignments, because they may have an impact on adherence. A job assignment could preclude a patient from attending a particular pill call line. It is appropriate to consider prescribing the medicine at a time compatible with the patient's work and programming schedule. Prescribers should also know the times that medication passes are scheduled and advocate for appropriate medication administration times if the current times are problematic. The timing of pill call should not interfere with meals, program assignments, visitation, or recreation and should be jointly decided by the health care authority and facility administrator.[1,11]

4. GENERAL PRESCRIBING MATTERS IN CORRECTIONAL INSTITUTIONS

4.1 Continuity of Care

An aspirational goal of correctional psychiatry is to attempt to provide timely access to mental health services and psychotropic medication treatment to inmates who need them, regardless of custody level, disciplinary or legal status, or housing location. Mental health treatment involves more than just prescribing psychotropic medication, and psychiatrists should not be limited to this role.[12] Inmate patients need access to appropriate psychiatric treatment that is equivalent to what should be available in the community.[12]

Ensuring continuity of psychotropic medications is a major challenge in correctional settings. For example, during receiving screening, transfer screening for intra-system transfers (e.g., a transfer from an intake facility to a receiving facility), or initial health assessment, inmates with mental disorders may not be able to provide complete or accurate information regarding their medication history (e.g., medication names, dosages, and schedules). Information from community providers and pharmacies rarely accompany an inmate on such transfers. Typically, a signed release of information is required to request treatment records. Intake staff may be able to contact the community pharmacy to verify the current prescription before the patient is seen by a provider.[13] Although electronic medical records may facilitate communication between providers, unless an interagency agreement for the sharing of information exists, there likely will be delays in verifying psychotropic medications, diagnoses, and recent treatment dates.

It is becoming the accepted standard in correctional health care[30,31,15,14] to require that incoming inmates receive an appropriate mental health screening and that those with positive screens receive a mental health evaluation. Mental health screening includes asking about current treatment with psychotropic medications. Some psychoactive agents are not immediately available in all jails or prisons, which may affect medication continuity for incoming inmates. Many correctional systems restrict the prescribing of controlled medications such as benzodiazepines (except for limited uses, such as alcohol and benzodiazepine withdrawal) and psychostimulants that pose a high risk of abuse, dependence, and diversion. Most correctional systems use formulary management or other strategies to limit the availability of agents with a high potential for abuse and to reduce the significant cost of brand-name psychotropic medications when equally effective, but lower-cost alternatives are available (see also section 4.9 Misuse and Diversion of Psychotropic Medication). When a specific psychotropic medication is clinically indicated but not available, the correctional psychiatrist either needs to identify an appropriate alternative or advocate for access to the medication (such as via a backup pharmacy) to prevent interruption of care.

Delays in continuing treatment with psychotropic medications when inmates with serious mental illness enter a correctional facility may result in clinical deterioration, a mental health emergency, or other adverse events. Incoming inmates who report recent treatment require assessment by health care staff and referral for timely evaluation by psychiatric staff.[12] Medical or psychiatric staff can order bridging medications, if indicated, prior to that evaluation; however, this practice requires caution when staff are unable to verify an inmate's self-reported medication history. While changes to an established treatment regimen should be based on an appropriate assessment and sound clinical reasoning (see also section 4.4 Assessment), incarceration provides an opportunity to evaluate the necessity or appropriateness of continuing to prescribe the psychoactive agents that an inmate was receiving in the community.[15]

In some cases, inmates in a health or mental health crisis may be transferred to a local emergency department, community hospital, or psychiatric hospital for evaluation or inpatient treatment. Similarly, patients might be sent to forensic or other psychiatric hospitals for court-ordered assessments or inpatient management of acute psychiatric conditions, under provisions of provincial mental health acts. The return of inmates from off-site hospital often poses challenges to medication continuity. For example, medication formularies or procedures for involuntary treatment may differ among facilities. Psychiatrists for such returning patients are advised to obtain information or a discharge summary from the sending facility.

Records of prior outside treatment can be integral to clinical and risk assessments. In jails, where the length of stay can be relatively short, obtaining such documentation in a timely manner can be challenging. Longer lengths of confinement in prisons can provide the opportunity to obtain more extensive records. In jails where a rapid return to the community is common, effective communication among psychiatrists is an integral part of the continuity of care. Communication with community clinicians, where possible, can significantly improve the quality of care and improve re-entry from jails and prisons.[16]

Ensuring medication continuity after inmates return to the community is an important goal in reducing the risk of relapse, whereas the focus of initial care in the correctional setting may be institutional stabilization. Discharge planners might arrange for a supply of psychotropic medications or refills to last until the patient can be seen by a community mental health provider. Methods to enhance the likelihood of medication continuity in the community include stabilizing an inmate's mental health prior to release, using psychotropic medications that are available and not cost-prohibitive in the community, and using long-acting medication formulations.[1,12] In choosing medications in the institution, it is important to consider the willingness of community providers to continue these medications. For patients anticipated to leave on parole status, it may be possible to coordinate with the parole department to make adherence with mental health treatment a condition of parole. Transition planners should attempt to link inmates with serious mental illness with appointments for ongoing community-based mental health programs.[17] Community-based case management services can help released offenders to continue to receive long-term mental health services. Growing evidence indicates that community re-entry initiatives play a role in improving continuity of care for inmates with mental illness.[18]

4.2 Coordination with Custody Staff

Delivering psychiatric care in correctional facilities requires active collaboration with custody personnel to effectively navigate the complex matrix of official and unofficial rules, roles, relationships, and communications. Efforts to develop positive relationships with custody staff can yield significant dividends for psychiatrists and patients. Collaborative relationships contribute to lowering barriers to providing care, including ready access to security escorts, flexibility in scheduling appointments with inmates, expedited movement of clinicians within a facility, and obtaining information to enable psychiatrists to work more effectively with inmates and other staff.

Effective collaboration requires a foundation of mutual respect, cooperation, and ongoing communication.[19] Key elements necessary to build successful working relationships with custody staff include understanding custody's role in maintaining safety and security, valuing the multidisciplinary approach, and appreciating the challenges faced by officers and inmates in the correctional environment. Relationships between psychiatrists and custody personnel can become strained when clinical interventions run counter to standard correctional practices.[12]

Psychiatrists navigating in the correctional environment need to successfully communicate and interact with staff who operate in a structured chain of command. This chain includes a hierarchy from line officers to supervising officers, with progressive ranks up to the facility warden or chief administrator. Competent communication supports both security and clinical missions.

Patients in correctional settings are entitled to confidentiality in terms of their mental health care, though with exceptions, some shared with community settings and some unique to corrections.[12] Limits of confidentiality may or may not be defined by statute, regulations, or institutional policy. Reasonable examples include danger to self or others, inability to care for self, or posing a threat to security (e.g., escape, riot, or drug distribution). When necessary, the disclosure of otherwise confidential information to non-clinical staff should be limited to the minimum necessary standard.[12]

Successful coordination with custody staff flows from being available for consultation, maintaining communication, and making attempts to align on mutual goals. Inmates with active psychiatric symptoms can affect the safety and efficiency of day-to-day operations in a correctional facility. Suboptimal adaptation of inmates to the correctional environment can lead to behavioural dysregulation and disruption that tax staff resources, create stress for officers, and increase the risk of injury for inmates and staff. Problem solving is most effective when communication underscores shared responsibility.[20] Psychiatrists have much to contribute in helping to stabilize the environment for the benefit of both inmates and officers. Officers and psychiatrists can serve as resources for each other and, in doing so, develop positive relationships built on confidence and trust.

Psychiatrists may be involved in formal or informal training to help officers understand common symptoms and signs of mental illness in inmates along with psychological and behavioural manifestations of stress in both inmates and staff. Training may also assist correctional staff in understanding the role of medications for the purpose of treating specific psychiatric illnesses as opposed to the unsubstantiated off-label use of psychotropic medications for the purpose of addressing difficult or aggressive behaviour when there is not a mental illness contributing to that behaviour. Psychiatrists can provide valuable information to help the officer identify when an inmate is having trouble that goes beyond an expected reaction to typical stressors in the correctional environment and thus may pose a risk to self, peers, or staff. Addressing and alleviating the symptoms of inmates with mental illness reduces the stress level of both inmates and the custody staff that work with them.

Custody staff may serve as a resource to psychiatrists in a variety of ways. Psychiatrists have relatively little contact with inmates, compared to custody staff who are present in the facility twenty-four hours a day. Officers can thus serve as the psychiatrist's "eyes and ears" within the institution and are typically the first to spot changes in the inmate's routine and behaviour. Information provided by officers can assist the psychiatrist with diagnosis, implementation of treatment plans, and ongoing risk assessment and management. Useful information includes observations of an inmate's interpersonal interactions, adaptive and maladaptive responses to events, attitude, personality style, and hygiene. Officers' observations can support the clinical assessment of neuro-vegetative signs and symptoms, as well as medication side effects (e.g., akathisia or dyskinesia). Information from custody staff may elucidate the consistency between a self-report and observed behaviour, thus aiding in narrowing a differential diagnosis. In most correctional settings, officers accompany nursing staff during medication administration on the cell blocks or at medication lines, allowing them the opportunity to interact daily with those inmates receiving psychotropic medications. Officers can provide information about medication compliance, use (or misuse) of KOP medications that are stored in the inmate's cell, and behaviours that may increase the risk of self-harm, including hoarding over-the-counter medications.

Officers can provide additional information that may clarify the context, circumstances, and conditions impacting an inmate's experience. This includes changes in institutional security classification, results of cell searches, reports of personal and professional visits, and content of shift and behaviour logs. Reports of stressors are particularly important, including the inmate's receipt of distressing news, or changes in behaviour during or following phone calls and scheduled visitations.

4.3 Coordination with Other Professionals

In addition to psychiatrists, other non-custody professionals provide a wide variety of services and are key partners in the care of inmate patients. The mental health team may include psychologists, counsellors, mental health nurses, and mental health assistants. The broader health care team may include primary care physicians, specialty consultants, nurse practitioners, physician assistants, nurses, nursing assistants, pharmacy technicians, and medical records personnel. Psychosocial services may also be provided by non-custody corrections personnel (such as case managers, social workers, recreation staff, educational staff, vocational trainers, chaplains, indigenous elders, and family) and peers may also provide significant psychosocial support. Treatment programs are administered by program facilitators who have extensive contact with inmates. Volunteers from the community may provide tutoring, pastoral counselling, religious services, leisure activities, and services in support of Alcoholics Anonymous and Narcotics Anonymous programs. Professional staff who interact with inmates can provide valuable information to assist in diagnosis, implementation of treatment plans, and ongoing risk assessment and management.

The composition of the health care team depends on the size of the facility and the inmate population. Large jails and

prisons may have extensive teams, while smaller facilities may have only a solo medical practitioner. Primary care clinicians may evaluate inmate patients in acute-, general-, or chronic-care disease-based clinics (e.g., diabetes, infectious disease, chronic obstructive pulmonary disease [COPD]). Correctional systems may also contract with specialty physicians to run clinics on-site, via telemedicine or in the community.

Ideally, psychiatric care in correctional facilities is delivered in a collaborative, multidisciplinary medical context. Clear and open communication between the primary care medical team and the psychiatrist is a critical component of effective, quality-driven health care. Psychiatrists in correctional settings may be consulted by the medical team for various reasons, including emerging psychiatric symptoms, distress related to medical problems, or assessing an inmate patient's capacity to make treatment decisions. Psychiatrists may collaborate in the care of complex medical conditions that co-occur with emotional and psychological symptoms, including hepatitis C, HIV, cancer, or chronic disease. Primary care clinicians may assist in monitoring psychiatric symptoms and managing complications and side effects of psychiatric treatment (e.g., metabolic complications, constipation).

Communication and collaboration with nursing staff are essential. Nurses are typically the medical staff members with the most frequent clinical contacts with inmate patients and are in a good position to relay important observations and information to the psychiatrist. Nurses typically conduct "sick call" clinics to screen requests for care and provide triage, appropriate initial treatment, and referral. This triaging process can be a significant source of referrals to the psychiatrist. Nursing staff dispense medications that are KOP, and they administer DOT medications during pill calls. Nurses may also see inmates during health care rounds in general population or segregation units. Nurses may relay information, such as lab test results, the behaviour of inmate patients on observation, medication adherence, and response to treatment.

Other members of the mental health staff are important partners in delivering and monitoring care. These individuals may provide screening services for inmates at admission, upon inter-facility transfer, and at critical times, such as transfer between the general population and segregation housing. They may be responsible for rounds in segregation, an important component of surveillance for decompensation in this environment. Mental health clinicians may provide psychotherapy either as crisis intervention or as part of the overall treatment plan. These additional clinical contacts can be an important source of information about medication response, medication adherence, and adaptive functioning.

Non-clinical correctional professionals have a significant influence on inmates and can be important additional allies in providing relevant clinical information. Educational staff offer classroom and individual instruction, and they often have a lot of contact with inmates. Teachers may be in the best position to describe an inmate's cognitive and behavioural abilities, attention, challenges, and response to treatment. Correctional case managers monitor sentence length and release dates, working with inmates to develop re-entry plans and support networks in and outside the prison. Recreational staff members have frequent interactions with inmates and can share important information about inmates' physical limitations and behaviour with peers. Correctional chaplains and indigenous elders play an important role in the spiritual lives of inmates who request their services. They provide spiritual and supportive counselling in a manner consistent with the inmate's faith and belief system. It is important to understand the meaning of spirituality and the role of religious or cultural practice for an inmate receiving psychiatric treatment and to make appropriate referrals to this important source of support. Consultation with the chaplain or indigenous elder may be appropriate when a religious or cultural practice (e.g., fasting) potentially interferes with treatment. A well-trained and clinically sensitive chaplain or indigenous elder can be an integral part of the wider treatment team.[12]

4.4 Assessment

Appropriate decision making regarding prescribing (including a decision to not prescribe) is dependent upon quality assessment. Psychiatric evaluations in jails and prisons may be challenging because of operational and clinical aspects that differ from community settings. This section describes the elements of the psychiatric assessment of greatest importance for identifying and documenting an inmate patient's medication needs. It is not intended to describe all elements of a comprehensive psychiatric assessment. Evaluations for administrative or forensic reasons and how to conduct a complete assessment of suicide and violence risk are beyond the scope of this document. This section relies heavily on the American Academy of Psychiatry and the Law Guideline for the Forensic Assessment[14] as well as the American Psychiatric Association's practice guideline for the psychiatric assessments of adults, third edition.[21]

A referral for psychiatric evaluation may originate from several sources: custody, administration, medical providers, nursing staff, other mental health clinicians, family members, or a self-referral. Important goals for the initial psychiatric evaluation include preliminary diagnostic impression, assessment of suicide and violence risk, and treatment recommendations. Besides history from the patient, valuable information may be gleaned from the referral source, the institutional medical record, the physical exam, diagnostic tests, custody or classification records, outside medical records, and collateral informants.

The setting of the evaluation (e.g., general-population clinic, mental health unit, infirmary unit, or segregated housing) is an important first consideration. Reasonable steps should be taken to prevent others from hearing the interview, to

maintain confidentiality while respecting the safety needs of the clinician and others. For segregated housing settings, confidentiality is improved by arranging in advance with custody for the evaluation to occur in a secure location out of earshot from other inmates.

The *American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders* suggests that greater suspicion for malingering is appropriate in a medico-legal context,[22] and studies have identified high rates of malingering in jails[6] and prisons.[7] Inconsistencies between symptoms and behaviour, atypical symptoms, and possible ulterior motives for presenting symptoms (e.g., housing changes, special privileges, avoiding culpability or punishment for institutional infractions, and obtaining medications for non-clinical purposes) may alert correctional clinicians that the inmate may be feigning or exaggerating illness. However, malingering and serious mental illness are not mutually exclusive[23] and malingering mental illness may be a creative method to seek help for legitimate institutional problems (e.g., harassment or other conflicts with peers or custody staff).

When the patient does not speak the same language as the psychiatrist, the resulting communication barrier presents a substantial clinical challenge. A common practice in correctional settings is to use bilingual inmates or non-clinical staff for interpretation. The dangers of this approach include the lack of confidentiality, reluctance to share information through a non-confidential interpreter, undue influence conferred by an interpreter, and poor quality of interpretation.[24] In light of these concerns, for non-emergency psychiatric evaluations of inmate patients, the utilization of either clinical staff or a qualified, confidential interpreter is recommended when an interpreter is needed. Some agencies now offer certified interpreters through telephone links. This need should be balanced against any delay in the assessment that may result. The psychiatrist should perform as comprehensive an evaluation as the circumstances allow. Clinical judgement may guide the frequency of follow-up visits. We suggest having more frequent contact with patients having active psychiatric symptoms or side effects, recent medication changes (including discontinuation), known serious institutional or outside stressors, or medications prescribed over objection in accordance with institutional policy.

4.5 Patient Education and Psychotherapeutics

The effectiveness of psychotherapy for many psychiatric disorders, either as monotherapy or as an adjunct to medication, has been well established. Positive outcomes for combined treatment with both medication and psychotherapy have been demonstrated for mood disorders,[25] anxiety disorders,[26] adult attention-deficit disorder,[27] and personality disorder,[28] among others. Psychotherapy can be of value even for the most serious mental illnesses, including schizophrenia.[29]

Providing psychotherapy in jails and prisons presents several unique challenges.[30] Facility staffing patterns may not be sufficient for providing meaningful psychotherapy, beyond mere monitoring of the prisoner's clinical status. Frequent patient turnover (due to releases, inter-facility transfers, or intrafacility relocations) is expected to disrupt long-term psychotherapies. Limitations on real or perceived confidentiality and general trust issues may be barriers to engagement.[31]

It is valuable for any mental health staff in correctional facilities, and especially psychiatrists, to engage patients in psychoeducation about diagnosis and treatment. Patient education on some subjects may, in some cases, minimize or eliminate the need for pharmacotherapy (for examples of sleep hygiene see Appendix A and for depression self-management activities see Appendix B). Mental health providers may choose to facilitate this process by selecting or creating handouts. We suggest that patient education materials are developed by or in consultation with a psychiatrist, are sensitive to the limitations on the freedom of the patient, use plain speech, and avoid the use of jargon. Such materials also need to be approved for distribution to inmates by an authorized administrator.

4.6 Informed Consent

A prescriber routinely has an ethical and legal duty to disclose the information reasonably necessary for a patient to make an intelligent, voluntary, and competent decision regarding a recommended psychotropic medication.[32] Working with inmates does not abrogate this responsibility.[33]

Whether truly voluntary consent can be obtained in a correctional environment, given the inherently coercive nature of these settings, is controversial.[33] This is particularly true for treatment with sex drive–reducing medications and other medications (e.g., to control chronic psychotic disorders, violent behaviour, or agitation, etc.), where security level, placement, and release decisions may rest on compliance to medications. Privacy limitations may influence an inmate patient to decline indicated medication, as they may be concerned about being viewed as mentally ill by peers and correctional officers when they go to mental health appointments and to the nurse for medication.

Factors limiting a prescriber's ability to obtain valid informed consent include formulary restrictions, language and cultural barriers, limited time with patients, and conflicting duties to the institution; all may constrict the discussion about treatment options and risks. Certain psychiatric symptoms or syndromes, such as florid psychosis, intellectual disability, and dementia, are overrepresented in correctional settings and can impair capacity to give consent. This issue should be addressed in the context of local policies and procedures.

Despite these challenges, a discussion that promotes informed consent is a necessary and important component of every clinical interaction involving prescribing in non-emergency situations. At a minimum, this conversation includes the indication for treatment, common and serious risks, and alternative options, including reasonable

non-formulary treatments and no medication, if appropriate. Although additional information relevant to medication administration in a correctional setting may need to be provided (e.g., a set early-evening medication line time that may complicate the prescription of a sedating medication), the discussion regarding informed consent may not be substantially different from that in the community setting. Failure to sufficiently document informed consent could generate a risk of liability. A formal consent form will facilitate adequate documentation and minimize liability risk; an individualized chart note outlining the discussion with the inmate patient is an acceptable alternative.[34]

4.7 Adverse Effects of Medications

The management of adverse effects from prescribed medications is a component of effective psychiatric care in any setting. Side effects have been identified as a major risk factor for medication non-adherence in prisons.[35] If possible, all serious and common adverse drug reactions should be monitored for patients in jails and prisons, following the same standards as in the community, including laboratory testing and focused physical examinations. Examples include but are not limited to baseline and regular periodic monitoring of serum levels for mood stabilizers (e.g., lithium, carbamazepine, and valproic acid), abnormal involuntary movement scales for antipsychotics, and metabolic monitoring parameters for second-generation antipsychotics. Goldberg and Ernst, in their textbook *Managing the Side Effects of Psychotropic Medications*, provide a tabular summary of an evidence-based approach to routine laboratory studies for commonly prescribed psychotropic medications.[36] It can also be beneficial to educate correctional staff and frontline mental health workers about signs of more serious side effects, such as serotonin syndrome and neuroleptic malignant syndrome.

If the prescriber suspects that medication is not indicated and is being taken by the patient for non-clinical reasons, we recommend that a careful risk-benefit analysis is undertaken, especially for medications with higher risks for adverse effects. Continuation of non-indicated medications may not be harmless.

Patients in jails and prisons are more likely to tolerate side effects when they recognize that they are receiving benefits from the medication.[35] Thus, psychoeducation about the indications, benefits, and side effects of recommended medications for patients is essential (see also section 4.6 Informed Consent). This begins with an informed consent discussion but should continue over the course of treatment. This approach may realize long-term benefits in terms of investment in treatment and improved adherence both in the institution and subsequently in the community.

4.8 Medication Non-Adherence

Medication non-adherence is a common problem in all treatment settings.[37] Regardless of where treatment occurs, it is paramount first to identify why a patient is not taking medications as prescribed. Unlike providers in an outpatient setting, the correctional psychiatrist may be quickly alerted to problems with adherence (e.g., by nursing or custody staff). In some cases, such as simple forgetfulness or fatigue related to managing a chronic illness, it may be sufficient to provide psychoeducation, re-establish a therapeutic alliance, or co-develop a new treatment plan.

Non-adherence may be directly related to illness effects. Not surprisingly, decompensation of a psychotic illness can lead to medication refusals related to persecutory thought content or general suspicion. Inmates who refuse medications are also more likely to be referred to psychiatry for evaluations for threatening behaviour and making potential threats toward others.[38] In these situations, consideration of the transfer to a higher level of care or psychiatric hospitalization may be indicated.

Inmate patients may refuse to take medications or attend a medication line due to stigma and peer influences. Inmates may fear that a psychiatric diagnosis will make them look weak and thus a potential target for abuse or extortion. It is important to consider the specific dynamic and then design an intervention to address as best as possible both real and perceived social problems impacting on adherence. Given the significant loss of rights that occurs while incarcerated, inmates may look for ways to control their environment to regain a sense of power. When psychiatrists prescribe medication without involving the patient in the treatment planning process, it promotes the inmate's sense of powerlessness and increases the likelihood that the patient will refuse the medication at pill call. Provided the patient is willing to engage and does not have strong antisocial traits, the psychiatrist can avoid this dynamic by offering appropriate choices in the context of a respectful informed consent discussion.

Certain medications hold value within the correctional system due to their psychoactive properties (see also section 4.9 Misuse and Diversion of Prescription Medication). Patients legitimately prescribed psychotropic medication may feign adherence but save the medication for sale or barter later. Some may misuse their medications to achieve certain effects not intended by the prescriber, such as sedation, euphoria, stimulation, or hallucination. In these situations, the non-adherence is covert. At medication pass, they will accept their medications but not take them. They may then take the medications by an unintended route of administration or after accumulation at an unintended high dosage.

It is important that nurses working in jails and prisons be trained to understand, monitor, and address both overt and covert non-adherence with prescribed medications. Signs of cheeking (when the medication is taken into the mouth but not swallowed) include refusing to speak, quickly turning away from staff or moving toward the restroom, and moving the tongue inside the mouth abnormally after taking medication. Low-cost interventions to prevent cheeking include having the patient open his or her mouth after taking medications

("mouth checks"), giving sips of liquid to swish and swallow after taking pills ("liquid chasers"), and requiring the patient to stay with staff or nurses for several minutes after taking medications. Palming (when the medication is taken in hand by the patient who may then pretend to put it in their mouth) may be minimized by careful observation and by prefilling cups with the pills to be administered, thus avoiding the need to directly place the pill(s) in the patient's hand. In the most extreme cases, an inmate patient may take the medication orally, then as soon as possible induce emesis to retrieve it.

Correctional officers also have a role in facilitating patients taking medications as prescribed during administration times. An officer working alongside a nurse offers a second perspective and increases the chance of detecting unusual behaviour. The presence of custody staff also sends a message that medication administration is important and that failure to take medications as prescribed is done at the inmate's peril. Another officer posted to observe the line can serve to restrict contact between inmates in the pill line and to catch the passing of administered medications between inmates. This officer may also observe if an inmate immediately goes to a nearby restroom to retrieve a cheeked medication or to induce emesis.

Some prescribing strategies may reduce the risk of covert non-adherence of oral medications. The dangers of misuse of psychotropic medication and the risks associated with non-adherence to psychotropic medication for severe and persistent mental illness prioritize ensuring that the medication being prescribed in the correctional setting is taken as prescribed. Making DOT a standard for all psychotropic medication is one step towards achieving adherence to psychotropic medication as prescribed. The other benefit of making DOT a standard is that this form of administration is not considered a punishment or a sign that the inmate is being suspected of malingering or non-adherence. There are other strategies to enhance the effectiveness of DOT. For example, oral disintegrating tablets typically dissolve in under 10 seconds. However, they are not absorbed through the oral mucosa and must still be swallowed. Practically speaking, this makes cheeking more difficult, but a determined inmate may still be able to avoid taking it. Also, orally disintegrating tablets are typically more expensive.

Alternatively, some medications may be crushed and mixed in liquid, apple sauce, or pudding (i.e., floated). This should be followed by a mouth check to ensure that all of the liquid, apple sauce, or pudding and, therefore, the medicine has been taken. Disadvantages of this approach are increased nursing time, an additional step in the medication administration process, alteration of medication properties (such as absorption), incomplete dosing due to residual medication left in the discarded cup, and unavailability of crushing for some medications (such as extended-release forms). The reader is referred to the Institute for Safe Medication Practice's Do Not Crush list, accessible at http://www.ismp.org/tools/donotcrush.pdf. When available (e.g., valproic acid and lithium citrate), liquid forms may circumvent many of the drawbacks of crushing medications, although they also require increased nursing time for administration (because of measuring). As such, a blanket policy against unmodified psychotropic pills is impractical in most correctional settings. One or more of the above strategies may have value, though, in an individualized treatment plan. The above signs of medication misuse and prevention strategies are reviewed in Table 1. Further preventive measures are described in Table 2.

Laboratory studies, especially serum levels, may be used to conceal covert non-compliance. It is important to ascertain the reasons for refusal. While the need for such monitoring ought to have been included in the original informed consent discussion, the patient should be counselled again about the risks of failure to obtain necessary laboratory studies. If the patient still does not agree to participate in clinically indicated monitoring tests, the psychiatrist should carefully consider the risks of continuing the medication, versus tapering or stopping the medication or switching to an alternative.

Long-acting injectable antipsychotics (LAIAs) have several benefits for managing medication adherence issues when an antipsychotic is indicated. Using an LAIA strategy when an antipsychotic is indicated is perhaps the surest method to eliminate the risk of covert non-adherence. Research on LAIAs has shown that they reduce recurrent hospitalizations and improve adherence.[39] Although drawing up and administering an LAIA requires time, there is a net decrease in nursing work because it eliminates the necessity for dosing of an antipsychotic on a daily or more often basis. Patients on monotherapy may prefer an LAIA for the sake of convenience and avoiding the need to go to pill call routinely. Cost, especially for second-generation LAIAs, can be a disadvantage. Additional side effects are usually limited to pain and bleeding at the injection site.[40]

4.9 Misuse and Diversion of Psychotropic Medication

In the correctional environment, there is a need for health care and custody staff to maintain a high index of suspicion for the misuse, diversion, and trafficking of prescribed medications. Health care professionals providing direct and indirect services to inmates (such as emergency departments, regional hospitals, clinics, and consulting specialists) may be naïve to this risk, especially for non-controlled medications. There is a high prevalence of substance use disorders among inmates, although access to street drugs is limited in institutional settings. Published literature on medication misuse in correctional settings is limited, leaving clinicians dependent on anecdotal reporting from other clinicians or the "buzz in the yard" among offenders regarding medications being targeted for misuse.[41]

Some inmates may seek treatment for the purpose of obtaining prescription medications for non-medical reasons. Requests may be made for specific medications, formulations, or dosages. Some may assert that every other

TABLE 1
Signs and strategies to prevent covert non-adherence

Signs of Covert Non-Adherence	Suggested Prevention Strategies
Refusing to speak	Mouth check
Moving the tongue inside the mouth	Liquid medications or water "chasers"
Quickly turning away	Officer observation and intervention
Leaving for the restroom	Restroom restriction
Diverting to inmates in line/nearby	Restrict inmate to inmate contact in the pill line
Unwillingness to show hands	Pre-fill pills in a cup to hand to the patient

psychotropic medication has failed or may claim to have certain medication allergies. Inmates may seek seemingly innocuous medications because they can produce sedation, hallucinations, or euphoria when crushed, snorted, smoked, injected, or taken in higher than intended doses. Other desired effects include enhanced sexual function, increased weight or muscle mass, and potentiation of other drugs.[42]

Benzodiazepines are controlled substances that are well known to carry a risk for misuse and dependence. Nevertheless, correctional health care providers require immediate access to them for managing such emergencies as acute seizures, status epilepticus, sedative withdrawal syndromes, and acute agitation. Pharmacy and therapeutics committees may consider allowing providers short-term access to benzodiazepines without prior authorization where the risk is manageable (such as intramuscular lorazepam or long-acting oral benzodiazepines limited to intake units). Controlled psychostimulants may be appropriate for some inmates and managing the risks of misuse of these are addressed elsewhere (see section 5.8 Attention-Deficit Hyperactivity Disorder).

The risk for misuse of non-controlled medication in correctional settings has been well described. One of the better examples of this is quetiapine, often referred to colloquially in prison as Suzy Q or baby heroin.[42–44] It is suspected that quetiapine is sought for its sedative and anxiolytic properties.[44,45] Intranasal, smoked, and intravenous self-administration of quetiapine by inmates has been described in the literature.[46] Quetiapine may also mitigate symptoms of opioid withdrawal, which might contribute to the high rates of quetiapine misuse observed in correctional populations.[44,47]

The misuse of bupropion (wellies) in correctional settings has also been well described in the literature. It has a chemical structure similar to amphetamine,[48] has mild stimulating properties, and is sometimes prescribed as an alternative to psychostimulants.[43] Bupropion may induce euphoria, but only when first-pass metabolism is bypassed via insufflation or smoking.[48]

Tricyclic antidepressants (TCAs) may be sought by inmates for their sedative and anticholinergic properties.[46] Some, such as amitriptyline, may be prescribed for non-psychiatric indications, such as neuropathic pain. Given the high risk for morbidity and mortality from these agents, alternative therapies may be considered. When clinically necessary, TCAs should be administered as DOT.

While published reports are limited, concerns about misuse have also been raised for other antidepressants. For example, there are anecdotal reports of an increase in non-formulary requests for venlafaxine following formulary restrictions on bupropion in the Texas prison system.[49] When taken in large doses, venlafaxine can produce an amphetamine-like high.[50–52] Some recreational users of venlafaxine compare its psychoactive effects to MDMA.[53] Other antidepressants suspected of misuse in correctional settings have included fluoxetine, mirtazapine, trazodone, and citalopram.[46,54]

Among mood stabilizers, some of which are antiepileptic drugs, gabapentin has the most evidence for misuse, both in community[55,56] and correctional[57] settings. Gabapentin has furthermore been linked to the abuse of bupropion in correctional settings.[58] Gabapentin has topical anaesthetic properties,[59] and anecdotal reports exist about prisoners using its powder to numb nasal passages to prevent irritation from the insufflation of bupropion.[60] Community case reports exist for abuse of carbamazepine, sometimes combined with alcohol,[61,62] and we are aware of at least two anecdotal reports of this in a correctional setting.[63]

Anticholinergics such as benztropine, diphenhydramine, and trihexyphenidyl are other medications noted for their abuse in both community and correctional settings.[42,46] They may be sought for sedative or hallucinatory effects.

Non-controlled medications prescribed by non-psychiatric general medical providers may also be at risk for misuse. There is overlap in terms of who prescribes certain medications (such as gabapentin, diphenhydramine, and clonidine) and, if inmate patients are permitted to have medications prescribed by general medical providers as

TABLE 2

Other preventive measures

1. Provide psychoeducation on the importance of medication compliance and the risks of medication or other drug misuse, including diversion.
2. Inform patient in advance of the potential consequences of misuse, including diversion, and the possibility that medications with a high misuse potential may be tapered or stopped if there is clear evidence of misuse or diversion of prescribed medication or use of other drugs (stoppage may be short term, as in the case of a single, minor incident, or long term, if serious or repeated incidents occur).
3. Review and sign a treatment agreement that includes an understanding of the above (no. 2) if prescribing a medication with a high misuse potential (see Appendix C as an example of such a treatment agreement).
4. Use directly observed therapy (DOT) for any medication deemed to be at high risk for misuse and floated in water, apple sauce, or pudding when possible.
5. Make allowances for the patient to decline psychostimulant medication on days they do not feel they need it (e.g., days they are not working or doing programs).
6. Provide ongoing motivational interviewing, symptom monitoring, psychoeducation, and support.
7. Conduct random urine, nasal, or saliva drug screens (for health purposes, not to be shared with operations).
8. Encourage implication in addiction treatment as indicated (e.g., 12-Step, SMART Recovery, correctional programs, and mental health services).

KOP, this may circumvent the need for covert non-adherence at pill call.[64]

There are numerous complementary strategies for managing the risk of misuse of prescription medications in jails and prisons. Administratively, pharmacy and therapeutics committees may limit access to higher-risk medications by using formulary controls. Correctional systems that have removed such agents from their formulary have reported significant reductions in abuse and diversion.[48] A study to evaluate the clinical effects of removing quetiapine from a correctional formulary showed no statistically significant changes in objective indicators of clinical functioning (e.g., transfers to higher levels of care, suicidal behaviour, or disciplinary infractions) among patients whose quetiapine was discontinued.[65] However, if the benefits of prescribing a higher-risk medicine are considered to exceed the risks for an individual patient, correctional psychiatrists should be prepared to use the non-formulary prior authorization process available in their system. From a quality improvement perspective, correctional health care administrators may alert prescribers when systemic prescribing patterns change, especially sudden surges in the use of particular medications.

Ongoing training of psychiatric, nursing, medical, and custody staff will increase awareness of unit-based or regional trends. As an example, Reeves described the implementation of a guideline and confidential peer-comparison for staff psychiatrists that discouraged treatment of insomnia with benzodiazepines or low-dose quetiapine.[66] This strategy successfully reduced these practices throughout the state prison system.

Correctional officials may contribute to reducing or preventing the misuse of psychotropic medications and other substances through a variety of methods, such as cell searches, forensic toxicology testing, and other surveillance. Although psychiatrists might play a consultative role in this regard or may communicate concerns about drug distribution and resultant safety issues, they should be mindful to avoid ethical conflicts related to dual agency and breach of confidentiality.

In terms of medication administration, covert non-adherence and methods to address it are found in section 4.8 Medication Non-Adherence.

At the provider level, reducing medication misuse begins with good clinical care. As previously discussed, comorbid substance use disorders, personality disorders, and malingering are highly prevalent in correctional populations. Although none of these are mutually exclusive with a serious mental illness, appropriate evaluation of symptoms (see section 4.4 Assessment) with a preference for objective indicators and collateral information over self-reports will minimize unnecessary treatment. Laboratory studies are sometimes of value for verifying adherence with prescribed medication (in cases of suspected diversion). It may be appropriate, especially for more vulnerable inmates, to directly inquire about coercion or extortion to divert their medications.[42]

Inmates may file grievances, threaten litigation, file provincial medical college complaints, intimidate or even threaten harm, or recruit outside advocates to pressure the responsible provider to prescribe preferred medication(s).[42] Correctional psychiatrists should remain open-minded regarding appropriate care for an individual patient. However, they should be prepared for such resistance when higher-risk

TABLE 3
Remedial measures

1. If suspected[1] or documented[2] misuse or diversion, repeat psychoeducation on the importance of medication compliance and the risks of medication or other drug misuse, including diversion.
2. If suspected or documented first-time minor incident or evidence of victimization, remind of potential consequences of further misuse, including the possibility that medications with a high misuse potential may be stopped (stoppage may be short term, as in the case of a single minor incident, or long term if very serious or repeated incidents).
3. If documented serious or repeated incidents and the medication that has been misused/diverted is non-essential, hold or taper the medication and other non-essential medication(s) at high risk for misuse. Consider alternative medication without high misuse potential if cessation is likely to be long term.
4. Ask the patient to do a relevant homework assignment (to show their understanding of the importance of medication compliance, the risks of medication misuse and diversion, the factors that put them at risk for misuse or diversion, what they can do to mitigate these risks in future, etc.).
5. Conduct random urine, nasal, or saliva drug screens (for health purposes, not to be shared with operations).
6. Consider resuming medication(s) that have been stopped if after a period of time there has been no further evidence of misuse and homework suggests a commitment to take medication(s) as prescribed (e.g., after 2–4 weeks for first-time misuse or diversion, longer if repeat offender). Consider alternative medication without high abuse potential if cessation likely to be long term.

[1] **Suspected misuse or diversion** = change in attitude or behaviour, staff suspicion in absence of laboratory testing or staff witnessing misuse, diversion or contraband, peer report.

[2] **Documented misuse or diversion** = staff witnessing drug misuse or diversion, contraband found during room search or on-person, positive drug screen for non-prescribed drugs or spike on nasal swab testing, negative drug screen for prescribed medication, patient confession.

medications are thought to be clinically inappropriate, adhere to prudent prescribing practices, and clearly document clinical decision-making.

Finally, it is important for providers to stay attuned to and follow up on reports from administration, custody staff, health care personnel, and even inmates regarding substances that may be targets for misuse. The problem of medication misuse is dynamic, with ever-evolving medications of concern and combinations and methods for misuse and diversion.[67] With a view to improving care and consistency of approach, in addition to reducing medico-legal risks, see Table 3 for guidance on approaching suspected or documented misuse or diversion.

5. EVIDENCE-BASED PRESCRIBING PRACTICES IN CORRECTIONAL INSTITUTIONS

Psychiatrists working in correctional institutions should be guided by evidence-based or evidence-informed prescribing of psychotropic medications. Treatment guidelines are available for commonly seen psychiatric disorders, such as schizophrenia, bipolar disorder, depressive disorders, anxiety disorders, trauma and stress-related disorders, and neurocognitive disorders. A review of the guidelines for each type of psychiatric disorder is beyond the scope of this practice resource. The issue for prescribing practices in correctional institutions is the lack of guidance regarding how to adapt evidence-based treatment guidelines for prescribing in a correctional context. Comorbidity is often the rule rather than the exception and when this includes substance-related and personality disorders, additional considerations for the correctional context are required. Finally, there are patients with psychiatric disorders who are uncommon in the community and are routinely seen in correctional institutional populations, such as paraphilias. This section will review the factors that need to be considered when following evidence-based prescribing practices in correctional institutions for such psychiatric disorders.

5.1 Schizophrenia and Other Psychotic Disorders

Appropriate identification and management of schizophrenia and other psychotic-spectrum disorders is an essential component of an adequate correctional mental health care system. A meta-analysis of the prevalence of serious mental disorders in prisons, rates of 3.7% for men and 4.0% for women, suggests that psychotic disorders are several times more prevalent in incarcerated settings compared to the community.[68]

Evidence from community samples suggests that untreated or undertreated psychosis is associated with poor quality of life, lower life expectancy, violence, victimization from others, self-injury, and treatment resistance.[69–71] A well-reasoned diagnosis based on an adequate assessment will better ensure appropriate treatment and reduce the risk of unnecessary prescribing of antipsychotic medication. Environmental factors in jails and prisons may complicate the assessment of psychotic symptoms. Suspiciousness, for

example, may be reality-based and potentially adaptive. In distinguishing psychotic disorders from feigned illness, it is valuable to take note of objective signs, such as negative symptoms, formal thought disorder, and disorganized behaviour, and to obtain relevant collateral information from family or staff who have observed the patient. When in doubt, when consistent with safety, consider delaying treatment until sufficient observation of the patient has taken place (preferably on a designated mental health unit) and a confident diagnosis has been made.

The 2004 American Psychiatric Association Practice Guidelines for the Treatment of Patients with Schizophrenia promotes three goals: 1) reduce or eliminate symptoms, 2) maximize the quality of life and adaptive functioning, and 3) promote and maintain recovery from the debilitating effects of illness to the maximum extent possible.[17] These objectives remain relevant in a correctional setting. A patient's functioning in a jail or prison may be reflected by participation in activities such as work or programming, compliance with institutional rules and appropriate staff direction, interpersonal interactions, and personal hygiene.

The use of antipsychotic medication is indicated for the treatment of psychotic illnesses in any setting, and the latest NICE guideline reports that there is no efficacy-based evidence for recommending one antipsychotic versus another for first-line treatment.[72,73] When selecting an antipsychotic medication for initial treatment, considerations include the patient's prior response to medication, history of side effects, history of non-adherence, medical comorbidities, and the risk for drug–drug interactions.[74] The side-effect profile of the medication (e.g., sedation, activation) in relation to patient symptoms is important to consider, along with patient preference, as much as the institution's formulary and security considerations will allow (see section 4.9 Misuse and Diversion of Psychotropic Medication). While formulary prescribing is more convenient, the psychiatrist may need to advocate for a non-formulary medication when it represents a better clinical choice. In such a situation, we suggest that the psychiatrist be prepared to obtain collateral information to support the non-formulary request.

The adjunctive use of benzodiazepines to treat catatonia, agitation, or anxiety in the acute phase of treatment should be considered.[74] We recommend that benzodiazepines be closely monitored, administered in crushed form, and prescribed for the short term when used as an adjunct treatment for psychosis, given their inherent risk for abuse and diversion.

Patients with psychotic disorders need close monitoring in the acute phase of treatment. The dose of antipsychotic medication may be titrated to effect, as tolerated.[74] In the event of failure to respond to the chosen treatment, consider overt or covert non-adherence (see also section 4.8 Medication Non-Adherence). Although serum levels of antipsychotics are of variable clinical utility, this strategy may have value for identifying non-adherence.[75] Long-acting injectable antipsychotic medications are another strategy to reduce non-adherence.[54,69] If treatment is refused and the patient may have impaired decision-making capacity, consider pursuing medications over objection in accordance with local statutes, regulations, and institutional policies.

Generally, at least four to six weeks is recommended for an adequate trial.[74] If an adherent patient fails to respond to antipsychotic medication, verify that the dose has been optimized, that there has been adequate time for response, and that the medication is being administered for optimal efficacy. Considerations include the timing and frequency of administration, drug–drug interactions, and the relationship of pill calls to mealtimes. For some antipsychotics, like ziprasidone[76] or lurasidone,[77] problems with absorption may arise when institutionally scheduled meal times are not coordinated with scheduled pill calls.

Patients who have failed two adequate trials of antipsychotic medications may be candidates for clozapine.[78] Requirements for blood monitoring and reporting[79] may present logistical challenges for prescribers in correctional settings. However, clozapine has been demonstrated to be effective in several prison settings[80,81] and may reduce the risk of disciplinary infractions in patients for whom it is indicated. A recent study showed that inmates in a Canadian prison who were prescribed clozapine at the time of release took significantly longer to re-offend than those prescribed other antipsychotics.[82]

Community practice guidelines recommend continuing antipsychotic medications in the maintenance phase to reduce the risk of relapse, using the lowest dose that accomplishes this aim and minimizes side effects.[74] Given the risks of emerging side effects and relapse, we recommend increased follow up of patients whenever medication doses are increased or decreased. We furthermore recommend caution when discontinuing antipsychotic medications for patients confidently diagnosed with a chronic psychotic illness. Transient psychotic symptoms, especially non-bizarre persecutory delusions, have been observed in prisoners and may be a function of environmental stressors[83] or exposure to trauma. In such cases, once asymptomatic, a trial of medication with careful monitoring may be appropriate.

Polypharmacy and prescribing high doses of antipsychotics are practices that have been identified in some correctional settings.[84] Although possibly appropriate for a few patients, we recommend caution with this approach. Antipsychotic polypharmacy is associated with a greater incidence of side effects, with limited evidence to support a clinical benefit for most patients.[72]

5.2 Bipolar and Related Disorders

The prevalence of bipolar disorder is estimated to range from 2% to 7% in prisons.[85] Bipolar disorder, along with alcohol and drug use disorders, has a great impact upon violent re-offending.[86] People with bipolar disorder, compared to others diagnosed with a serious mental illness, also appear to have the highest rate of overall criminal recidivism.[17]

Community guidelines[6,7] recommend using lithium, divalproex sodium, or a second-generation antipsychotic for first-line therapy of acute manic or mixed episodes. An antipsychotic medication may be combined with lithium or divalproex sodium in the case of a severe episode or when psychotic symptoms are present. Lamotrigine, in light of its need for gradual titration to an effective dose to minimize the risk of a life-threatening rash, is not recommended for the management of acute bipolar illness.[6] Although a risk for abuse or diversion especially in the correctional environment,[87] short-term use of benzodiazepines may be appropriate to treat agitation or mania.[6] Appropriate risk management strategies for benzodiazepines in corrections include crushing tablets and DOT (i.e., nursing administered medications with mouth checks; see also sections 4.8 Medication Non-Adherence and 4.9 Misuse and Diversion of Psychotropic Medication).

For bipolar depression, there is evidence to support the use of olanzapine combined with fluoxetine, olanzapine monotherapy, quetiapine, or lurasidone.[6,7,88] The most recent update of the American Psychiatric Association (APA) guideline for the treatment of patients with bipolar disorder suggests that moderate evidence exists for the use of antidepressants combined with traditional mood-stabilizing medication for bipolar depression.[6] This guideline advises against using antidepressant monotherapy in patients with bipolar illness.[6] In general, antidepressants should be used with caution in patients with bipolar depression. Experts recommend reserving them for severe cases, with discontinuation after the resolution of the depressive episode.[89]

In general, continuation of the agent used in the acute phase of treatment is appropriate, if effective and tolerated.[7] If a patient with bipolar disorder suffers a recurrence of a mood episode, consider checking a serum level (if prescribed an agent for which this is available) to optimize treatment[7] and to verify compliance. Consider also active substance use or a comorbid medical condition,[6] with laboratory investigations targeted accordingly.

For patients prescribed lithium, NICE guidelines recommend checking serum levels one week after starting lithium and after every dosage change. For patients on maintenance therapy, check serum levels every three months for the first year of treatment and thereafter every six months. More frequent monitoring may be appropriate for older individuals, in cases of renal impairment, and for those with ongoing bipolar symptoms, a history of non-compliance, or levels of 0.8 mmol/L or higher.[7] Consistent with these guidelines, we suggest collaboration with medical providers to avoid inadvertent prescription of medications likely to interact with lithium, to counsel patients about these risks if they have access to over-the-counter anti-inflammatory medications, with consultation as necessary for specific cases.

While some community guidelines do not recommend routine monitoring of serum levels for valproate, these may be of value to address issues related to efficacy, tolerability, or compliance. For patients on valproate, the FDA recommends checking transaminases at baseline and six months thereafter,[90] as well as serum levels when doses are changed and "whenever enzyme-inducing- or inhibiting drugs are introduced or withdrawn."[91] As recommended by NICE guidelines, consider checking a hepatic panel and complete blood count at baseline, after six months, and then annually thereafter.[7]

When selecting an antipsychotic to treat bipolar disorder in a correctional environment, the cautions discussed elsewhere regarding abuse and diversion (see section 4.9 Misuse and Diversion of Psychotropic Medication) apply.

Algorithm-based pharmacotherapy for bipolar disorder prisoners was systematically evaluated in two studies[92,93] in Connecticut and showed improved outcomes on symptom scales and quality of life. A detailed review of the Texas Implementation of Medication Algorithms (TIMA) algorithm is beyond the scope of this document as it is considered out of date,[94] although interested readers may review it online.[95] Nevertheless, these studies are promising in terms of using a structured and stepwise approach for the management of bipolar disorder in correctional settings.

There has been other research to evaluate the value of mood stabilizers in correctional settings. A chart review of patients in Connecticut corrections supported the use of divalproex sodium for impulsivity and mood lability, though benefits for these problems were also observed in subjects without bipolar disorder.[96] Similar positive results have been noted for impulsive aggression and violence in "prisoners" (sic) for lithium, not necessarily tied to diagnosis.[97]

To our knowledge, the psychopharmacologic treatment of cyclothymic disorder has never been systematically studied in correctional populations. Patients wth cyclothymia may be particularly prone to mood switching from antidepressants and side effects from antipsychotics.[98] Psychiatrists in correctional settings frequently encounter patients with cyclothymic symptoms but are cautioned that none of the medications used for bipolar disorder have been FDA-approved for, or even specifically studied for, cyclothymic disorder.

5.3 Depressive Disorders

When addressing common complaints about depression in correctional settings, we suggest that the psychiatrist approach these cases with a broad differential diagnosis respectful of comorbidities and alternative explanations for mood symptoms in incarcerated people. Especially in those who have recently been in the community (e.g., pre-trial inmates, parole violators, returns from halfway houses), consider acute adjustment issues or symptoms referrable to intoxication or withdrawal from a substance. Transient or subthreshold depressive symptoms may be better explained by a personality disorder or more chronic adjustment issues (see also section 5.5 Trauma- and Stressor-Related Disorders).

Nevertheless, as in the community, major depressive disorder is the most common serious mental illness found in incarcerated settings. In a systematic review on prevalence rates in corrections, major depression was found in 12% of women and 10% of men.[68] A study of depression in pre-trial detainees using psychological instruments found the rate of moderate to severe depression symptoms of 25.3% to 28.4%.[99]

Some community guidelines recommend using rating scales both to evaluate depression and to monitor response to treatment,[100] and they may be a useful tool in differentiating a transient depression from one that may benefit from pharmacotherapy. Though rating instruments have been used in studies of inmates with depression, to our knowledge, no studies have been done thus far to test the validity of depression scales in jails or prisons. Given the realities of confinement, such scales may be confounded in correctional settings by questions about loss of interests, inability to make decisions, and loss of libido.[99] We are skeptical of self-report rating scales, given the high rates of malingering in these settings (see section 4.4 Assessment), but clinician-rated scales such as the Quick Inventory of Depression Symptomatology (QIDS-C)[101] may be useful. No studies to date have been done to test the validity of the QIDS-C in correctional settings.

Cognitive behavioural or interpersonal psychotherapy are the best evidence-based treatments for subthreshold depressive symptoms.[102] However, even for mild to moderate major depressive episodes, antidepressant medication is recommended by the most recent versions of community guidelines.[100,102] For more severe episodes (including complex depression, depression with psychotic features or with severe self-neglect, or if otherwise life-threatening), medication is necessary, and ECT may be considered.[100] While the clinical value of antidepressant medications for less severe cases of depression has been questioned,[103] in some correctional settings, such as jails or segregated housing, psychotherapy may not be available or practical. Regardless, patient education (including depression self-management, see Appendix B) and psychotherapeutic techniques are of value in treating depression of any severity and should be provided whenever possible and appropriate (see also section 4.5 Patient Education and Psychotherapeutics). For patients complaining of insomnia in combination with a depressive disorder, advice on sleep hygiene may be helpful (see also Appendix A and section 5.9 Insomnia and Sleep-Wake Disorders).[104]

When pharmacotherapy is indicated, factors to consider when selecting an initial antidepressant include the medicine's side-effect protocol, pharmacological properties (e.g., how frequently it must be dosed), and prior response to treatment.[36] The selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs) are appropriate for first-line treatment for depression in this population. SSRIs, in particular, are as effective as other antidepressants, have a favourable risk-benefit profile, and have rarely been identified as being prone to misuse in correctional settings. While some research suggests the superiority of some SSRIs within the group, the clinical meaning of these differences is not well established.[100,105] Some antidepressants, such as the TCAs, may be more toxic in overdose,[102] a factor that should be considered in inmate patients at greater risk for suicide or who may be seeking them for their sedating properties (see also section 4.9 Misuse and Diversion of Psychotropic Medication).

As ADHD is a common comorbidity with depression, especially in a correctional setting (see also section 5.8 Attention-Deficit Hyperactivity Disorder), it may be useful to consider bupropion, desipramine, nortriptyline, or venlafaxine,[106] each of which has some evidence supporting its use in adults with major depression and ADHD. However, bupropion has significant abuse potential, and its use should be carefully monitored in the correctional setting.[46] In cases of depression with comorbid insomnia not responsive to psychological interventions, evidence for mirtazapine supports efficacy for the treatment of insomnia.[107] (See also section 5.9 Insomnia and Sleep-Wake Disorders.) The prescription of monoamine oxidase inhibitors (MAOIs) in correctional settings is not advised unless it is possible to ensure that the patient will have reliable access to a tyramine-free diet.

If the patient does not respond to the first choice of antidepressant, consider if the diagnosis is accurate, if medication adherence is a factor, if adequate time has been allowed for response, and if the dose has been optimized.[100] Although treatment failure complicated by ongoing substance use may not be likely in a prison setting, the ongoing abuse of illegal, controlled, or other substances is certainly possible[46,87,108] and may be more prevalent in the pre-trial detainee or jail population.

If there is no response to a therapeutic dose of an agent by four weeks, or if the side effects are unacceptable, consider switching to another antidepressant. The STAR*D trial demonstrated the efficacy of switching to either bupropion SR, sertraline, or venlafaxine after a failed trial of an SSRI, although none of these second choices was superior.[109] Another approach in such cases is augmentation,[100,102,105] which refers to using an additional non-antidepressant drug or two antidepressants together. Combinations of medications carry with them an increased risk of drug interactions and side-effect burden.[102] Evidence-based augmentation strategies include lithium, mirtazapine, or second-generation antipsychotic medications, such as aripiprazole, olanzapine, quetiapine, or risperidone.[100,102]

Some guidelines recommend the use of continuation treatment for patients who have had two or more episodes of depression or those who have had severe or prolonged episodes. The period of two years is generally considered advisable before considering tapering the medication toward discontinuation. Gradual tapering and monitoring over at least four weeks is recommended.[100,102]

5.4 Anxiety Disorders

Correctional psychiatrists are frequently asked to see patients with a chief complaint of anxiety. Those who have recently been arrested or sentenced are facing various real or potential losses (e.g., freedom, reputation, relationships, employment, housing, and certainty about the future), must endure forced abstinence from alcohol and other substances and are coping with an abrupt change of environment. It is thus not surprising that anxiety problems are common in corrections. Surveys have rarely recorded the prevalence of anxiety disorders in this population. A recent study of Brazilian prisons revealed a lifetime prevalence of anxious–phobic disorders of 50% in men and 35% in women and one-year prevalence of 27.7% in women and 13.6% in men.[110] A study of prisoners in Quebec with comorbid antisocial personality disorder found the lifetime prevalence of any anxiety disorder (including post-traumatic stress disorder [PTSD]) was 68.5%.[111]

In this population, comorbidity is extremely common: depressive disorders, substance use disorders, substance withdrawal, and personality disorders are the most obvious. Withdrawal symptoms must be managed before an assessment for an independent anxiety disorder can be validly performed. In the case of a comorbid depressive disorder, the NICE guideline suggests that the depression is treated first.[112] It is also important to consider a personality disorder in the differential diagnosis, particularly borderline personality disorder, since the treatment may be different (see also section 5.7 Personality Disorders).

In the initial stages of treatment, consider psychoeducation, self-help treatments, psychoeducational groups (when available), and active monitoring.[112] When a diagnosed anxiety disorder is either not responding to the above modes of management or is causing significant functional impairment, then more intensive psychosocial therapies, when available, as well as pharmacotherapy should be considered.[112]

The first line of psychopharmacological treatment for anxiety disorders is an SSRI or an SNRI.[112,113] It is prudent to begin with a low dose and gradually build up to a moderately high dose. Sometimes doses at the higher end of the prescribing range are needed to treat anxiety disorders, though 75% of patients respond to the initial low dose of an SSRI for an anxiety disorder, except in cases with obsessive-compulsive disorders, which generally require a higher dose.[114] Some SSRI treatment failures may be prevented by avoiding dosing too aggressively and by warning patients about the initial risk of short-term activation (i.e., may worsen anxiety in the short term). Furthermore, it is appropriate to educate patients that the anticipated response to an antidepressant is expected to be gradual over a period of weeks. Sometimes steadfast resolve is required on the part of the prescriber, with support for the patient, to get through this initial period. Psychosocial therapies such as relaxation therapy, mindfulness, and (if available) cognitive–behavioural therapy should be continued or initiated as an adjunct to pharmacotherapy.

If the initial SSRI is not tolerated, another may be tried. The SNRI venlafaxine can be quite effective but takes time to titrate to achieve a therapeutic dose.[112,114] Another SNRI to consider is duloxetine, which is FDA-indicated for some chronic pain conditions that are frequently comorbid in a prison population.[115] Some evidence suggests duloxetine may be an effective second-line treatment for ADHD symptoms,[116] which are also commonly comorbid in corrections (see also section 5.8 Attention-Deficit Hyperactivity Disorder). Other second-line treatments include TCAs, particularly imipramine and clomipramine, which are well established in the treatment of anxiety disorders, especially panic disorder and obsessive–compulsive disorder.[114] TCAs may be sought out in a correctional environment for their sedating properties, though especially tertiary TCAs (e.g., doxepin or amitriptyline) merit caution, given the risk of cardiac complications and potential lethality.[46] Other second-line treatments include buspirone, which is indicated for generalized anxiety disorder and is generally well tolerated; and mirtazapine and trazodone, which are only indicated for major depressive disorder, though both have well-known anxiolytic and hypnotic effects[117,118] and may be used in correctional settings.[46]

The NICE guidelines clearly advise *against* the use of benzodiazepines, except in the very short term, noting that these medications are not effective for the long-term treatment of anxiety.[112] The World Federation of Biological Psychiatry guidelines conclude that benzodiazepines are not found to be effective in obsessive–compulsive disorder and they should generally be excluded from treatment in people with substance use disorders.[114] Benzodiazepines, though effective for anxiety, are controlled medications with known abuse potential. Li, Brewer, and Reeves conclude that they should not be prescribed as a first-line treatment of anxiety in a correctional setting.[87]

Community guidelines suggest pregabalin as a treatment for anxiety disorders.[112,114] It may be appropriate to consider this for a patient with anxiety with a comorbid indication, such as epilepsy, diabetic neuropathy, post-herpetic neuralgia, or fibromyalgia. Pregabalin abuse has been described in community case reports.[46] Some antipsychotic medications (such as quetiapine) may have off-label anxiolytic properties.

5.5 Trauma- and Stressor-Related Disorders

A meta-analysis of studies on PTSD in incarcerated populations found rates ranging from 4% to 21%, which are higher than the reported rates in the community, and women were disproportionately affected.[119] Many come to a jail or prison already with a significant history of trauma exposure. In one study, rates of childhood sexual abuse were 70% of female and 50% of male prison inmates.[120] It is not uncommon for military veterans in correctional settings to have a history of traumatic experiences. In a survey of 128 veterans in the King County jail system in Washington State, 39% screened positive for PTSD.[121]

Inmates may experience trauma before or during their period of incarceration. According to the National Former Prisoner Survey of 2008, 9.6% of former state prisoners reported at least one incident of sexual victimization by peers or staff during their most recent stay in a jail, prison, or post-release community treatment facility.[122] In 2004, 15.9% of inmates reported being injured in a physical fight since they entered prison.[123] Inmates with mental illness are more likely to be physically or sexually victimized, and those assaulted are at increased risk of suicide.[124,125]

Complex PTSD may involve a broader range of presentation not explicitly included in the DSM-5, including emotional dysregulation, problems with interpersonal relationships, and dissociative symptoms, often occurring with a background of severe and prolonged trauma experiences.[126] Early research suggests that symptoms consistent with complex PTSD are common in incarcerated individuals.[127] Management of this variant may be more challenging.

We have not found published studies specifically reporting on pharmacotherapy for inmates with trauma-related disorders. Community guidelines call for SSRIs or SNRIs as a first-line psychopharmacological treatment for PTSD.[128] The best evidence exists for paroxetine, sertraline, and fluoxetine, the former two of which are FDA-approved to treat PTSD.[128] Several studies have called into question the efficacy of SSRIs for combat-related trauma,[128] but a more recent meta-analysis of treatment studies for PTSD in combat veterans supported the use of SSRIs and TCAs for PTSD, anxiety, and depression symptoms in this group.[129] One subsequent open-label study suggested that mirtazapine was effective for combat-related PTSD.[130] The NICE guideline for the management of PTSD questions the evidence for its treatment with SSRIs in general, pointing to stronger evidence for mirtazapine, amitriptyline, and phenelzine.[131]

In terms of adjunctive treatments for PTSD, a strong body of evidence supports the use of prazosin, off-label, to address trauma-related nightmares and sleep disruption, with a typical effective dosage range of 3 mg to 15 mg per night.[128] Several second-generation antipsychotics have shown promise as an augmentation strategy,[128] although some have suggested that the benefits of these in PTSD are limited to sedation effects.[132]

Research has shown that benzodiazepines are ineffective for acute stress disorder and PTSD.[114] The original APA guideline for PTSD discourages the use of benzodiazepine monotherapy[133] and recommendations on this class were not addressed in the most recent update.[128]

Several studies have been published addressing effective group psychotherapies for people with PTSD who are incarcerated and are addressed in depth elsewhere.[134]

Adjustment disorder, which is addressed in part elsewhere in this document (see also section 5.3 Depressive Disorders), is listed in the DSM-5 in the chapter on trauma- and stressor-related disorders.[22] People prone to incarceration have high rates of personality traits that may predispose them to a maladaptive reaction to stress, including any number of problems, both inside and outside the institution. Loss of freedom and its accoutrements, loss of outside relationships, exposure to hardships intrinsic to a correctional facility, interpersonal conflicts, outstanding legal problems (e.g., trials, sentencing, appeals, family court), environmental changes (including returns from a lower security setting), and disciplinary problems or sanctions are common precedents to the development of acute adjustment symptoms among inmates. Prevalence studies are limited but have suggested a rate of 11.48% among prisoners on remand and 7.7% among prisoners with an axis I diagnosis.[135] These are likely underestimates, as rates of adjustment disorder in primary care range from 11% to 18% and in consult-liaison psychiatry range from 10% to 35%.[136]

As in acute trauma, symptomatic pharmacological treatment for anxiety or insomnia related to adjustment problems may be appropriate, but the need for continuation should be evaluated on an ongoing basis.[135] There is no good evidence to support or refute the use of an antidepressant for adjustment disorder.[136] Should symptoms worsen, or not resolve rapidly with the resolution of the precipitating stressor, the psychiatrist is advised to reconsider the diagnosis and treatment.

5.6 Impulse-Control Disorders and Aggression

Inmates presenting with impulsive and aggressive behaviour is a common occurrence and can be challenging for health care providers in correctional settings.[137] Felthous[138] defines impulsive aggression as behaviour "that is angry or rageful, eruptive, unplanned, and lacking self-control."[138] Such behaviour may or may not be part of a mental illness, such as intermittent explosive disorder (IED), although the DSM-5 lists antisocial or other personality disorders as an exclusion criterion if these better explain the aggression.[22] Aggression has been linked to traumatic brain injury (TBI),[139] some history of which is reported by up to 82% of incarcerated individuals.[140] One study in the South Carolina prison system found a rate of medically attended TBI, meaning those whose injury was verified by state hospital or state emergency department records, of 5.65% of male inmates, and 6.22% of female inmates.[141] In both of these groups, and especially in women, a higher rate of violent disciplinary infractions was observed.[141]

In practical terms, it may be difficult in correctional settings to distinguish if the aggressive behaviour is due to character pathology or another mental disorder. Regardless, psychological intervention, where available, is appropriate first-line treatment outside of emergencies.[135] Medication treatment for aggression may be reserved for impulsive aggression mainly attributable to an underlying mental disorder, or for adjunctive treatment.

Although there are no FDA-approved medications specifically for the management of aggressive behaviour, algorithms

for treating aggression have been proposed.[138,142–145] If a diagnostic assessment reveals the presence of a mental disorder (e.g., schizophrenia, a mood disorder, or a neurocognitive disorder), treatment of the underlying disorder with indicated medications is an appropriate first step.

Numerous studies report the effectiveness of mood stabilizers for aggression in people with bipolar disorder[146] and schizoaffective disorder.[147–149] Carbamazepine,[150] or as recently suggested oxcarbazepine,[151] may be particularly appropriate to consider if the aggression is associated with epilepsy or other neurologic conditions. A number of studies have shown divalproex sodium to have an anti-aggressive effect.[152,153] Hollander and colleagues demonstrated that divalproex reduced aggression for patients with borderline personality disorder.[154] Evidence strongly suggests that lithium salts have a specific anti-aggressive effect in a variety of disorders; the first clinical study of lithium for this purpose, published in 1971, showed a resolution of angry episodes in aggressive prisoners while taking lithium, using a single-blind on-off-on methodology.[155]

Atypical antipsychotics may have specific anti-aggressive effects. Clozapine has proven particularly effective for aggression in people with schizophrenia[156,157] and is FDA-approved to reduce the risk of suicidal behaviour in patients with schizophrenia or schizoaffective disorder.[158] Risperidone has also been found to reduce hostility independent of its efficacy for treatment of the underlying psychosis.[159]

Some studies have supported the use of SSRIs to treat aggression associated with personality disorders.[160,161] One study showed benefit from fluoxetine in a subset of depression patients with higher levels of baseline hostility, irritability, and paroxysms of anger.[162] Other research has supported the use in SSRIs to treat aggression related to TBI.[139] Felthous proposes that fluoxetine is considered first in subjects with IED and as a second-line treatment in those with aggressive outbursts in the context of a borderline personality disorder.[138] Some patients may display paradoxical aggression within a short time of starting SSRIs, but this is rarely observed in practice.[163]

Several other medications have been studied for aggression in other settings. A number of studies have demonstrated the efficacy of beta-blockers, such as propranolol, nadolol, and pindolol, in patients with psychotic disorders,[164,165] intellectual disabilities,[166] and severe dementia.[167] In practice, these medications produce very few side effects and may be useful even in relatively low doses. Some evidence exists for the efficacy of buspirone as an anti-aggressive medication across a spectrum of disorders.[144,168] Trazodone may reduce aggression related to Alzheimer's disease.[169]

Aggression related to adult ADHD may manifest itself in correctional settings (see also section 5.8 Attention-Deficit Hyperactivity Disorder). The use of stimulant medication to address aggression in jails and prisons is controversial, and as we suggest in section 5.8, conduct problems alone are insufficient justification for the prescription of psychostimulants. Psychostimulants reduce aggressive behaviour in children with ADHD but are not effective in those with conduct disorder.[138] Considering this and the risk of abuse and dependence, Felthous wrote that the use of psychostimulants is "strongly discouraged in jails and prisons."[170]

In practice, patients who have been prescribed benzodiazepines for aggression, which might have been started or continued by general practitioners in the community, often resist being switched to other treatments (see also section 4.1 Continuity of Care). Inmate patients may demand benzodiazepines even though the evidence suggests they may paradoxically exacerbate aggression.[142,143,145] Felthous concludes that benzodiazepines should be avoided in people who have a problem with aggression.[138]

5.7 Personality Disorders

A unified interdisciplinary approach to treating patients with personality disorders is important in correctional systems. Core features of personality disorders often strain working relationships with health care providers and other staff. As in community settings, the treatment of incarcerated patients with personality disorders is challenged by the dearth of data to guide practice and by the complexity of patient presentations. The milieus of prisons and jails, where maladaptive character traits may be less tolerated than in other settings, may further complicate management. The presence of comorbid psychiatric conditions, including mood, anxiety, trauma, and stressor-related and psychotic disorders, as well as substance use disorders, is common in incarcerated people with personality disorders.[171] This section will focus on rational medication management of personality disorders that minimizes the potential for harm within correctional facilities but also contributes to alleviating suffering among incarcerated patients.

Among these conditions, borderline personality disorder (BPD), antisocial personality disorder (ASPD), narcissistic personality disorder, and paranoid personality disorder have the highest prevalence in correctional settings.[5] Rather than focusing on diagnosis, much of the literature has focused on symptom clusters. A pharmacological approach to treating patients with personality disorders is based on evidence that some dimensions of personality are mediated by variations in neurotransmitter physiology and are responsive to medication effects.[172] Obtaining an accurate history of an incarcerated patient's constellation of symptoms related to character pathology as well as comorbid psychiatric disorders is a crucial first step in pharmacologic management.

A publication by the World Federation of Societies of Biological Psychiatry[173] as well as Cochrane reviews[174,175] suggests that pharmacologic agents may be useful in the treatment of personality disorders. Pharmacotherapy of personality disorders, while not uncommon clinically, is not supported by robust research for BPD[49,176] and ASPD,[177]

and no medications are licensed for use in the UK for any personality disorder. Similarly, no pharmacologic agent is Health Canada–approved for the treatment of any personality disorder in Canada (or FDA approved in the United States). According to the NICE guidelines, there was no consistent evidence, including from uncontrolled studies, that supports the use of any pharmacological intervention to treat antisocial personality disorder or to treat the behaviour and symptoms that underlie the specific diagnostic criteria for antisocial personality disorder.[177] However, there is considerable evidence that medications may be helpful for anger problems.[142–145] The NICE guidelines stipulate that drug treatment should not be used specifically for BPD or for the individual symptoms or behaviours associated with it (e.g., repeated self-harm, marked emotional instability, risk-taking behaviour, and transient psychotic symptoms). In fact, these guidelines note that polypharmacy is a common problem in BPD, often driven by desperate medication changes during crises, and recommend reviewing the treatment of those who do not have a diagnosed comorbid mental or physical illness, with the aim of reducing and stopping unnecessary drug treatment.[49] Olanzapine, in particular, was noted to be of little benefit in BPD.

Some exceptions are suggested in the NICE guidelines. Comorbid conditions, for example, may be treated consistent with their specific guidelines. For example, ASPD may be associated with chronic anxiety or anger problems, which may be treated accordingly. A randomized controlled trial from 1997 provided evidence that phenytoin had a small but non-significant effect, compared with placebo, on aggression in incarcerated patients with ASPD. The NICE guidelines mention SSRIs, which increase cooperative behaviour in people without mental illness, as a potential intervention among ASPD patients in prisons.[177] The NICE guidelines suggest pharmacologic interventions for BPD should be reserved for crises; “sedatives” are the preferred treatment; dosages should be within the normal therapeutic ranges; and comorbid conditions should be targeted, rather than BPD specifically or symptoms solely attributable to it.[49] Treatment for comorbid anxiety, depression, or impulsivity is often used in practice.

Extrapolating from limited data and the divergent opinions described above to incarcerated patients who have personality disorders and comorbid conditions is challenging because of the complexity of correctional environments and clinical pressures that are not necessarily present in community settings. Minimal data exist regarding pharmacologic interventions of incarcerated patients with personality disorders. However, strong opposition to medicating patients with personality disorders could be counterproductive in correctional environments. As in any clinical decision, psychiatric providers should weigh the risks and benefits of medication treatment, as well as consider the same analysis for no medication. When medication trials are used, the informed consent process should include disclosure of the off-label nature of proposed treatments if applicable. Therapy should be directed at clearly defined clinical endpoints, regularly evaluated, and discontinued if not effective. Polypharmacy should be avoided if at all possible.[31] Research on pharmacotherapy for personality disorders in correctional settings is particularly needed and encouraged.

5.8 Attention-Deficit Hyperactivity Disorder

Prevalence estimates of ADHD among prison inmates have generally ranged between 9% and 50%, but all of the underlying studies have methodologic shortcomings that limit their reliability.[178] Although the actual prevalence among inmates remains unclear, the disorder can cause significant impairments for some of them. ADHD can interfere with an inmate’s ability to participate in programming, educational services, and vocational activities. It also can contribute to disruptive behaviours that compromise operations and security. Effective treatment might be expected to result in functional improvements that benefit the inmate patient and the facility.

Treating inmates who have ADHD, however, can have potentially adverse consequences. Stimulant medications, which are the mainstay of treatment for ADHD, have a high potential for misuse. Some inmates feign symptoms to gain access to these medications, and assessing these individuals diverts scarce psychiatry time and resources. Handling and administration of controlled substances requires additional nursing time. Diversion of medications can occur, both voluntarily for profit and involuntarily, when patients come under duress from other inmates to hand over their medications (see also section 4.9 Misuse and Diversion of Psychotropic Medication). While the NICE guidelines for the treatment of ADHD in adults suggest using stimulants first, they specifically suggest the non-stimulant atomoxetine as first-line medication treatment in prison and any other scenario when there is concern about misuse or diversion.[179,180]

Nevertheless, the benefits and risks of using stimulants to treat inmates with ADHD have parallels to use in community settings. A blanket ban on access to effective treatments in or out of correctional facilities is controversial. Correctional psychiatrists face the challenge of ensuring access for patients in need of treatment while minimizing the potential risks. A recent decision of the ICR committee of the College of Physicians and Surgeons of Ontario (File No. 110550) noted that the threshold for prescribing stimulants in detention centres is very high because of the frequent misuse and abuse. They noted that the patient was not involved in any meaningful activities that would require focus and concentration. They also noted that patients with drug dependence should not be prescribed stimulants, except in exceptional circumstances. This decision appears to endorse the guidelines suggested herein.

How to identify and treat inmates with ADHD has been a source of controversy. A model developed for use in the Massachusetts prison system,[181] and described in the third

edition of Psychiatric Services in Correctional Facilities,[12] attempts to address the risks of prescribing controlled substances in a way that still ensures treatment for appropriate inmates. Key features of this model include:

- Assess and treat only inmates who have current and persistent functional impairments that impede active participation in programming, educational activities, and work assignments;
- Whenever practical, conduct a comprehensive diagnostic assessment that includes a clinical examination; history of symptoms, record of reviews; observations of third parties; symptom rating scales; and if possible, scales to detect malingering;
- Treat with non-stimulants and non-pharmacological interventions whenever practical and effective;
- Do not initiate or continue the use of stimulant medications for inmates who do not meaningfully participate in recommended educational and non-pharmacological therapies;
- When stimulants are necessary, administer these DOT, using liquid or floated medication to lessen the risk of diversion;
- Lessen the needed frequency of medication administration by timing the use of shorter-acting stimulants to coincide with important activities;
- Discontinue stimulants for inmates who misuse or divert their medications.

This model precludes stimulant treatment for inmates who have impairments in only leisure or recreational activities. It also avoids the use of stimulants for inmates based solely on disruptive behaviours to discourage intentionally harmful misbehaviour to gain access to medication. Along with restricting treatment only to inmates with meaningful functional impairments, these criteria avoid unnecessary diagnostic assessments and thus lessen demands on psychiatry and nursing staff. This model also recognizes that scarcity of time and resources may limit the extent to which some correctional mental health programs can gather historical and third-party information, conduct testing, and do other in-depth assessments of the patient.

Using the described model in a well-resourced correctional mental health system, Appelbaum reported a stimulant treatment prevalence of about 1% for two years. This model represents one attempt to strike a balance that ensures treatment for those who can obtain significant benefits while limiting the substantial problems that can arise with the availability of stimulants in correctional facilities. When correctional psychiatrists at the 2016 Annual Meeting of the American Academy of Psychiatry and the Law were surveyed about the preferred approach for stimulant prescription in jails and prisons, the majority (64%) supported a balanced approach such as described above and in the literature. Far fewer supported a blanket ban (29%) or first-line use (2%) of stimulants.[182] A recent protocol was devised for use in a busy Canadian detention centre, and this has been implemented with success, with the cooperation of the mental health team and all the psychiatrists involved.[183] This protocol substantially follows the previous guidelines.

5.9 Insomnia and Sleep-Wake Disorders

Insomnia, or sleep dissatisfaction at least three nights per week for at least three months, is the most frequently encountered sleep-wake disorder in incarcerated populations.[12] Insomnia may be secondary to a medical or psychiatric condition, a medication side effect, or substance use or withdrawal, but may also be an independent disorder.

At least 40% of incarcerated individuals in prison[184] complain of insufficiently restful sleep, with the rate likely higher in jail populations because of the abrupt change from community living. Prevalence rates of insomnia disorder in correctional settings vary widely (11%–81%), due to inconsistent definitions and research methods.[185] Regardless, insomnia can have a significant impact on quality of life and is a risk factor for mood disturbances, cardiovascular disease, suicide, and overall mortality.[131,185] Untreated insomnia and sleep disorders have been linked to aggression, at least in incarcerated adolescents and young adults.[69]

As in the community, care must be taken to look for underlying causes of insomnia. A distinction should be made between acute or situational sleep problems versus chronic insomnia. Proper emphasis must be placed on non-medication strategies to deal with chronic insomnia and importance given to psychoeducation of the patient, including cautions that medications are only of limited effect for limited durations in chronic insomnia (see Appendix A for sleep hygiene strategies).

As in the community, prior to initiating any treatment regimen, psychiatrists in jails and prisons may find it helpful to first establish a timeline of the sleep disturbance and relationship to comorbid psychiatric or medical conditions and external stressors. While it may be difficult to firmly establish whether insomnia is a causative factor or a complication of medical or psychiatric comorbid conditions, a detailed history can help point to a particular course of treatment.

The conditions in correctional settings — confinement, lack of physical activity, legitimate fears about personal safety, inconsistent light and temperature control, idle time during the day that promotes napping, poor mattress quality, considerable institutional concern about medication diversion — as well as considerable concerns about medication diversion create a unique environment in which to try to manage sleep complaints. The expectation of eight restful, uninterrupted hours of sleep may not be realistic. Each patient with sleep complaints may be educated on these factors in the process of collaborating on reasonable goals for treatment. If the patient's sleep pattern is within normal limits, no treatment may be appropriate (e.g., if the patient wishes to sleep more than is necessary for a healthy adult).

Treatment options should be realistic for the jail or prison setting and offer the best chance for the resolution of symptoms. Basic sleep hygiene (see Appendix A) and CBT approaches are the least risky, have the greatest chance of success for long-term resolution of symptoms,[74] and should be considered first-line treatment whether alone or in combination with medication.[54] Consistent with this, the American College of Physicians in their 2016 guideline on treating chronic insomnia in adults strongly recommended CBT as first-line therapy, regardless of whether or not medications are prescribed for this problem.[186] However, correctional settings, particularly jails with shorter and less predictable stays, may not be able to offer CBT reasonably.

Studies on prescribing practices for insomnia in jails and prisons are sparse, and there is no evidence-based recommendation for pharmacotherapy in these settings. Medications that are Health Canada–approved to treat insomnia include benzodiazepines and non-benzodiazepine hypnotics (e.g., zolpidem, zopiclone, melatonin, l-tryptophan, chloral hydrate).[131] According to the American Academy of Sleep Medicine (AASM), a short-or intermediate-acting benzodiazepine agonist or melatonin receptor agonist should be the first- and second-line choice, respectively.[187] However the use of benzodiazepines presents problems in correctional settings. If neither is effective, l-tryptophan, or a sedating low-dose antidepressant may be considered. Antihistamines should be avoided because of their risk of adverse effects (e.g., anticholinergic side effects, paradoxical agitation, and reports of tolerance).[188]

Despite AASM recommendations, correctional settings often restrict or actively discourage the prescription of benzodiazepines for conditions other than alcohol and benzodiazepine withdrawal because of the potential for abuse and diversion (see also section 4.9 Misuse and Diversion of Psychotropic Medication). Many also limit the use of some non-benzodiazepine hypnotics (e.g., zolpidem, zopiclone).

Because of security and formulary restrictions, prescribing practices for sleep disorders in jails and prisons have evolved inconsistently. Sedating TCAs, atypical antipsychotics (e.g., quetiapine, olanzapine) and antihistamines (e.g., diphenhydramine) are frequently used, despite the risk of adverse effects and limited evidence of efficacy.[107,189] An exception may be mirtazapine, though it is not labelled for insomnia and it carries a risk for significant weight gain.[107] Studies have supported trazodone[190] and low-dose doxepin to improve total sleep time, sleep efficiency, and sleep quality, without evidence of dependence or worsening insomnia upon discontinuation.[100]

It is appropriate to choose a medication that best matches the patient's symptom profile and considers any comorbid conditions. Off-label use of a medication for insomnia should be disclosed in the informed consent process (see also section 4.6 Informed Consent). In such scenarios, using the lowest effective dose and the shortest duration of treatment necessary is prudent. The psychiatrist should document clearly the reasons for the choice of medication, the anticipated course, and treatment goals that will indicate the need for a change or discontinuation of pharmacotherapy.

Patients may present with daytime mood disturbance, irritability, and sleep disturbance, along with complaints of snoring (often relayed via cellmates). A survey of 438 women in a maximum-security prison found that 10% of them were at higher risk for sleep apnea.[102] To our knowledge, the use of Continuous Positive Airway Pressure (CPAP) in jails or prisons has not been formally studied. At the 2016 Annual Meeting of the American Academy of Psychiatry and the Law, in a survey of correctional psychiatrists, over 92% of those aware of the institutional policy on CPAP devices reported that these were available for use by inmates, with 77% reporting this equipment as being provided by the facility or health care vendor.[182] We recommend that in suspected cases of sleep apnea, the psychiatrist collaborates with the appropriate provider in the facility authorized to manage this condition (see also section 4.3 Coordination with Other Professionals).

The other DSM-5 sleep-wake disorders have not been adequately described in the literature as related to correctional settings. Psychopharmacologic management of these disorders should mirror community standards as much as possible.

5.10 Substance-Related Disorders

Substance use disorders (SUDs) are perhaps the most prevalent mental health disorders among incarcerated people, with over half of state prisoners meeting criteria for one or more SUDs.[191] Even higher rates are observed for jail inmates,[188] incarcerated women,[192] and incarcerated people with comorbid mental health problems.[193] Use of drugs and alcohol is strongly linked to crime in the community[194–196] and, while certainly more difficult, may continue during incarceration.[108] Additionally, substance use will often resume in the community, with a substantial risk of relapse[123] and mortality.[197] A recent study of coroners' reports of drug overdose deaths from Ontario found that over 10% of the deceased had been released from provincial incarceration within one year, and 20% of these had been released within one week of their demise.[125]

Detoxification is medically supervised withdrawal; it does not treat the underlying disorder. Psychosocial interventions validated for the treatment of SUDs in correctional settings, such as CBT, relapse prevention training, and therapeutic communities, are appropriate to include as a component of the patient's treatment plan.[11,198] Although medication is not the mainstay of treatment for substance-related disorders, medication-assisted treatment (MAT) for opioid use disorders is an evidence-based treatment.

Methadone is a long-acting, controlled, agonist opioid that is supported by the literature for the maintenance treatment

of opioid use disorders.[199] Randomized, controlled trials of methadone maintenance therapy (MMT) for *released* prisoners have showed increased engagement in treatment, reduced use of heroin,[200] and reduced needle sharing.[201]

Buprenorphine is another option for MAT that has advantages for inmate patients anticipating return to the community. Although it is still a controlled substance, buprenorphine is a partial opioid agonist with limited euphoric effects and respiratory depression. Studies have demonstrated similar effectiveness of buprenorphine to methadone for reducing illicit drug use and criminal activity and improving adherence to treatment.[191] In contrast to methadone, it is available in an office-based setting, is more acceptable to former inmates, and can be more quickly titrated to an effective dose.[191] Methadone was found in a Cochrane Review to be superior to buprenorphine in retaining patients in treatment.[202]

A longitudinal cohort study in New South Wales of agonist therapies (either methadone or buprenorphine) for inmates transitioning to the community reduced the risk of reincarceration by 20%.[203] A more progressive study by the same group demonstrated a 74% reduction of all causes of death for opioid-dependent prisoners started on agonist therapy during incarceration.[204] A randomized, open-label study of inmates serving less than a six-month sentence in Rhode Island showed that continuing MMT during incarceration improved chances of re-engagement with treatment upon release.[205]

The National Association of State Alcohol and Drug Abuse Directors, in a 2013 policy statement, appears to have reversed a recommendation against MAT for incarcerated people with a substance use disorder.[26] The National Institute on Drug Abuse (NIDA), citing favourable research showing that prisoners started on methadone before release had better outcomes in the community, recommends this strategy for inmates with opioid use disorders.[174] the use of methadone and buprenorphine is generally accepted in many Canadian correctional facilities. It is generally prescribed by the correctional general practitioners. Psychiatrists should be aware of these prescriptions and take this into consideration when prescribing additional psychiatric medications.

Generally speaking in Canada, other psychopharmacological treatments for addictions are rarely used.[194] Recent NICE guidelines suggest the range of evidence-based treatments that are worthy of consideration and the reader is referred to these.

5.11 Sex Offenders and Paraphilic Disorders

Although they comprise a minority of crimes, sex crimes are highly feared and stigmatized by society. While they are perceived by the public as intractable, only 5.3% of sex offenders were shown to commit another sex crime within three years of release.[128] While a sex crime may or may not occur in the context of a pre-existing mental illness,[128] mental illness is often observed in this population. A survey of 113 consecutive male sex offenders from jails, prisons, or residential parole placements found high rates of SUDs (74%), mood disorders (35%), impulse-control disorders (23%), anxiety disorders (9%), and antisocial personality disorder (56%).[206] Sex offenders are considered to be at the bottom of the social hierarchy in prison and are often subjected to harassment, exploitation, and assault by peers.[133] These individuals are therefore exposed to experiences that may increase the risk of developing a new mood, trauma, or stressor-related disorder during their period of incarceration. Sex offenders may have a diagnosable paraphilic disorder. Based on clinical interviews with a series of male sexual offenders referred to a residential treatment facility from prison, jail, or probation, a DSM-IV paraphilia was identified in 58%.[206] While the management of other mental disorders is addressed elsewhere, this section intends to address the specific treatment of paraphilic disorders in correctional settings.

The APA published a task force report in 1999 that included then-current best practices for the treatment of paraphilic disorders.[207] The literature at the time supported sex drive–reducing medications, such as the antiandrogens (e.g., cyproterone acetate [CPA] and medroxyprogesterone acetate [MPA]), as effective interventions to reduce sex offender recidivism, although the task force cautioned that these are less effective when administered involuntarily as the only form of treatment. Thus, it was recommended that these be combined with psychotherapeutic approaches.[207] More recently, the World Federation of Societies of Biological Psychiatry (WFSBP) published a guideline for the treatment of paraphilic disorders in 2010.[208] WFSBP recommends a stepwise approach, starting with psychotherapy alone, then an SSRI (at higher doses, similar to those appropriate for obsessive–compulsive disorder), then antiandrogen medication (e.g., MPA or CPA), then long-acting gonadotropin-receptor hormone agonists (e.g., triptorelin or leuprolide), then various combinations of the above.[208] The WFSBP recommends against antiandrogen treatment for offenders who do not freely provide informed, uncoerced consent.[208]

The use of testosterone-lowering medications in incarcerated people may raise ethics concerns. However, these treatments may relieve suffering and reduce the risk of re-offending. In many correctional institutions, there might either be a lack of access or appreciation of the evidence-informed treatment of paraphilic disorders with sex drive–reducing medications. Often, psychiatrists working in correctional settings may need to educate patients and other staff about the indications and risks versus the benefits of such medication. When clinically appropriate, these medications should be offered as part of treatment to patients in correctional facilities who are able to provide informed consent. Each case should be considered on a case by case basis. In some instances, it may be inappropriate to provide sex drive–reducing medications, for example, in a pedophile who is currently incarcerated. In other cases, for instance, of hypersexuality or exhibitionism, consideration should be given to sex drive–reducing medications within the correctional system.

6. CONCLUSIONS AND FUTURE DIRECTIONS

This practice resource presents the essential considerations for prescribing practices in correctional institutions. It recognizes that the available evidence specifically focused on the pharmacological management of mental illness for incarcerated people is, in general, limited in both quantity and quality. People with a serious mental illness are overrepresented in correctional institutions, and their illnesses are frequently complicated by comorbidities, including substance use and personality disorders, to a greater degree than seen elsewhere, highlighting a need for more studies specific to this population.

There are no established guidelines for prescribing psychiatric medications in correctional facilities. Community guidelines or practice resources may be helpful for psychiatrists in these settings, but studies to validate community practices in jails and prisons are also lacking. Even when current, general guidelines may be difficult to implement in a correctional setting fully. Treating patients in a correctional context is different from in the community. The section on general prescribing matters in correctional institutions reviews these considerations and emphasizes that, although good clinical assessment underpins treatment, care plans need to incorporate operational issues relevant to correctional facilities that are not considered by general guidelines.

Ethical concerns about the vulnerability of incarcerated people as research subjects have severely limited work in this area; however, interest in reinvigorating research with this population has been growing.[209] We recommend engaging institutional review boards to encourage high-quality research on the assessment, pharmacological management, and monitoring of serious mental illness in jails and prisons. Validation of new or existing guidelines or practice resources for the treatment of psychiatric illnesses in incarcerated people would be of particular value.

APPENDIX A

Sleep Hygiene Tips

Do not worry about an occasional sleepless night. Even if you sleep only a couple of hours, you can function the next day. You will probably sleep better the following night.

Stick to a regular schedule of sleeping and waking. Go to bed at the same time and wake up at the same time, regardless of the amount of sleep you had the night before. It may help to plan your sleep and wake schedule around a regular event, such as counts, mess, or pill call.

Do not nap during the day. If you nap during the day, you reset your sleep "clock," and your body may not be ready to sleep when it is supposed to be.

Exercise and other activities during the day will prepare your body to sleep at night. Exercise within three hours of sleep can keep you up, though.

Eat a healthy diet. Do not drink caffeinated beverages (such as coffee, tea, or dark sodas) after noon. Some foods, like chocolate, may also contribute to sleeping trouble. Avoid heavy meals before bedtime. If you are hungry, a light snack may help you fall asleep.

Do not drink a lot of liquids before going to sleep. You may have to wake up to urinate and may not be able to return to sleep.

Develop a relaxing sleep ritual you perform 30 minutes before going to bed (such as reading). Do not get involved in emotional issues immediately before going to bed.

As much as possible, turn off lights at night, and keep your cell cool and quiet. If the lighting in your cell bothers you, consider covering your eyes with a clean piece of fabric (such as a sock or a washcloth). If your cell is too warm, use a fan. During the day, expose yourself to as much light as possible. If you have a cellmate, agree about quiet hours, when radio or television will be turned off or used with headphones.

Do not lie in bed unless you plan to sleep. Use the bed only for sleeping, unless other activities (like reading) are part of your sleep ritual. Do not try to make yourself sleep. If after 30 minutes in bed you are unable to sleep, get out of bed and do something relaxing. Do not return to bed until you are sleepy.

Be aware that other medications (such as opiates, steroids, some antidepressants, interferon) and medical problems (such as chronic pain, asthma, peptic ulcer disease) may also interfere with sleep. Ask the provider prescribing medications for your medical or mental health problems if these problems or the medications you are taking may be a factor in your difficulty sleeping.

If the above do not work, try sleep restriction. Add up the total number of hours you sleep per day, then allow yourself to remain in bed only for that many hours each night. Another approach is paradoxical intention, which is doing the extreme opposite of what one wants or fears. For example, instead of going through activities leading to sleep, prepare for staying awake, and do something energetic. Or, if worry is a factor in sleeplessness, force yourself to worry excessively.

Getting emotional support and expressing your feelings may reduce stress and help you to sleep.

APPENDIX B

Depression Self-Management Tips

Depression happens to a lot of people behind bars. Helping you feel better is an important goal of your treatment team. YOU are part of this team, and there are plenty of things you can do between appointments to help feel better. You may not be able to do all of these things, but even doing a few can be beneficial. It will help to start your day by planning to do something you would usually enjoy.

Increase your physical activity

- Unless your doctor says no, try walking, jogging, or sports.
- If you already do these things, try doing them more.

Plan fun things to do

- Read a book.
- Watch a movie or a favourite television program.
- Write a letter.
- Call a friend or family.
- Plan a visit.
- Play a game.
- Write about your feelings in a private journal.

Do more to relax

- Take a shower.
- Listen to music.
- Meditate.
- Breathe deeply.
- Go to the yard for fresh air.

Participate in your treatment plan

- Take medication as directed, if prescribed by a doctor.
- Attend all assigned individual and group therapy sessions.

Stay busy

- Staying busy is good for your self-esteem.
- If you are on a work detail, do the best job you can do.
- Keep your cell neat and clean.
- Help someone else.

Good sleep habits

- Have regular sleep and wake times – avoid napping during the day.
- Avoid caffeine and chocolate, especially after noon.
- Quit or cut back on cigarettes.
- Do not lie in bed except to sleep.
- Avoid exercising, eating, or drinking a lot of fluids just before bed.
- Avoid sleeping pills.

Eat healthy foods

- Avoid junk food.
- Eat more fruits and vegetables.
- Do **not** use alcohol or drugs.

Spirituality

- If it is your tradition, pray, read scripture, and attend religious services.
- If it is not, think about the people, ideas, and things that are important to you and give your life meaning.

APPENDIX C

Treatment Agreement for Medications with a High Potential for Misuse

I understand that I am being prescribed _____, which has a high potential for physical or psychologic dependence and misuse.

I recognize that appropriate use of medication is very important for health and safety within CSC institutions.

I understand that following this agreement is essential to building and maintaining trust in the doctor/nurse/patient relationship.

I will not take this or any other medication in any manner other than as prescribed by my doctor/nurse practitioner (e.g., I will not take medication in larger amounts, more frequently, or through a route other than prescribed).

I will not trade, sell, or give my medication to anyone else.

I will not use any unauthorized substances or other medications not authorized by my doctor/nurse practitioner.

I will participate constructively in other recommended non-medication treatment for my condition.

I will not engage in threatening behaviour (verbal, physical) toward my doctor/nurse practitioner or other health care staff.

I agree to cooperate with regular mouth checks and provide random urine, saliva, nasal swabs, or blood samples for testing if requested by my doctor/nurse (note: this is for health care purposes only, and results of any drug screens will not be shared with others outside of my treatment team).

I understand that my doctor/nurse practitioner may consider stopping or tapering all medication with high abuse potential if there are any concerns related to my not following this agreement. If this occurs, my doctor/nurse practitioner will meet with me in person to discuss the concern and why it is happening. Documented minor concerns could be grounds to stop or taper medication without my consent on a time-limited basis, and repeated minor concerns or one major concern could be grounds to do this over the longer term. If this should happen, my doctor/nurse practitioner will explain what I need to do over what period of time before consideration is given to reinstating the medication.

Patient Physician/Nurse Practitioner _____

Date _____

Minor concerns:

- Demanding or repeatedly asking for medication that is not indicated, off-formulary, or at higher than recommended doses
- Using medication for purposes other than as intended (e.g., pain killers for anxiety)
- Increasing the dose without authorization
- Repeatedly running out of medication before the renewal date

Major concerns:

- Selling or giving medication to peers
- Using illicit drugs
- Stealing medication, including taking medication prescribed to peers
- Injecting, smoking, or snorting oral forms of the medication

REFERENCES

1. Knox CM. Medication administration and management: directly observed therapy. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 159–164.
2. Shekelle PG, Ortiz E, Rhodes S, et al. Validity of the agency for healthcare research and quality clinical practice guidelines: how quickly do guidelines become outdated? JAMA 2001;286:1461–1467.
3. Scott C, Falls B. Mental illness management in corrections. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. New York (NY): Oxford University Press; 2015. pp. 8–12.
4. Glancy G, Simpson A. Ethics dilemmas in correctional institutions. In: Griffiths EE, ed. Ethics challenges in forensic psychiatry and psychology practice. New York (NY): Columbia University Press; 2018.
5. Virdi S, Trestman R. Personality disorders. In: Trestman RL, Appelbaum KL, Metzner JL. 1st ed. Oxford Textbook of Correctional Psychiatry. New York (NY): Oxford University Press; 2015. pp. 195–199.
6. McDermott BE, Sokolov G. Malingering in a correctional setting: the use of the Structured Interview of Reported Symptoms in a jail sample. Behav Sci Law 2009;27:753–765.
7. Pollock PH, Quigley B, Worley KO, et al. Feigned mental disorder in prisoners referred to forensic mental health services. J Psychiatr Ment Health Nurs 1997;4:9–15.
8. Knoll J. Evaluation of malingering in corrections. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 117–122.
9. Paparella S. Identified safety risks with splitting and crushing oral medications. J Emerg Nurs 2010;36:156–158.
10. Stubbs J, Haw C, Dickens G. Dose form modification — a common but potentially hazardous practice. A literature review and study of medication administration to older psychiatric inpatients. Int Psychogeriatr 2008;20:616–27.
11. National Commission on Correctional Health Care (NCCHC): standards for mental health services in correctional facilities. Chicago (IL): NCCHC; 2015.
12. American Psychiatric Association. Work Group to Revise the APA Guidelines on Psychiatric Services in Correctional Facilities, American Psychiatric Association. Task Force to Revise the APA Guidelines on Psychiatric Services in Jails and Prisons: Psychiatric services in correctional facilities. 3rd ed. Arlington (VA): American Psychiatric Association; 2016.
13. Burrow GF, Knox CM, Villanueva H. Nursing in the primary care setting. In: Puisis M, ed. Clinical Practice in Correctional Medicine. 2nd ed. Philadelphia (PA): Mosby Elsevier; 2006. pp. 426–459.
14. Glancy GD, Ash P, Bath EP, et al. AAPL practice guideline for the forensic assessment. J Am Acad Psychiatry Law 2015;43:S3–53.
15. Appelbaum KL. The mental health professional in a correctional culture. In: Scott CL, ed. Handbook of Correctional Mental Health. 2nd ed. Washington (DC): American Psychiatric Association Publishing; 2010. pp. 91–118.
16. Group for the Advancement of Psychiatry. Committee on Psychiatry and the Community, American Psychiatric Association: people with mental illness in the criminal justice system: answering a cry for help. 1st ed. Arlington (VA): American Psychiatric Association Publishing; 2016.
17. Baillargeon J, Binswanger IA, Penn JV, et al. Psychiatric disorders and repeat incarcerations: the revolving prison door. Am J Psychiatry 2009;166:103–109.
18. Baillargeon J, Hoge S, Penn J. Addressing the challenge of community reentry among released inmates with serious mental illness. Am J Community Psychol 2010;46:361–375.
19. Appelbaum KL, Hickey JM, Packer I. The role of correctional officers in multidisciplinary mental health care in prisons. Psychiatr Serv 2001;52:1343–1347.
20. Aufderheide D. Communication in correctional psychiatry. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 46–49.
21. American Psychiatric Association. The American Psychiatric Association practice guidelines for the psychiatric evaluation of adults. [Accessed 2016 July 4.] Available from: http://psychiatryonline.org/doi/pdf/10.1176/appi.books.9780890426760.
22. American Psychiatric Association, Force D-T. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Washington (DC): American Psychiatric Association; 2013.
23. Rogers R, Sewell KW, Goldstein A. Explanatory models of malingering: a prototypical analysis. Law Human Behav 1994;18:543–552.
24. Martinez-Gomez A. Interpreting in prison settings: an international overview. Interpreting 2014;16:233–259.
25. Picardi A, Gaetano P. Psychotherapy of mood disorders. Clin Pract Epidemiol Ment Health 2014;10:140–158.
26. Cuijpers P, Sijbrandij M, Koole SL, et al. Adding psychotherapy to antidepressant medication in depression and anxiety disorders: a meta-analysis. World Psychiatry 2014;13:56–67.
27. Emilsson B, Gudjonsson G, Sigurdsson JF, et al. Cognitive behaviour therapy in medication-treated adults with ADHD and persistent symptoms: a randomized controlled trial. BMC Psychiatry 2011;11:116.
28. Vaslamatzis G, Theodoropoulos P, Vondikaki S, et al. Is the residential combined (psychotherapy plus medication) treatment of patients with severe personality disorder effective in terms of suicidality and impulsivity? J Nerv Ment Dis 2014;202:138–143.
29. Dickerson FB, Lehman AF. Evidence-based psychotherapy for schizophrenia: 2011 update. J Nerv Ment Dis 2011;199:520–526.
30. Oxelson E. Group psychotherapy in a state prison. Group 2010;24:225–238.
31. Stoffers JM, Lieb K. Pharmacotherapy for borderline personality disorder—current evidence and recent trends. Curr Psychiatry Rep 2015;17:534.
32. Tepper AM, Elwork A. Competence to consent to treatment as a psycholegal construct. Law Human Behav 1984;8:205–223.
33. Dlugacz H, Wimmer C. Legal aspects of administrating antipsychotic medications to jail and prison inmates. Int J Law Psychiatry 2013;36:213–228.
34. Deiter P. Informed consent and consent forms. Perm J 2008;12:53–54.
35. Shelton D, Ehret MJ, Wakai S, et al. Psychotropic medication adherence in correctional facilities: a review of the literature. J Psychiatr Ment Health Nurs 2010;17:603–613.
36. Goldberg JF, Ernst CL, American Psychiatric Association Publishing. Managing the side effects of psychotropic medications. 1st ed. Washington (DC): American Psychiatric Association Publishing; 2012.

37. Osterberg L, Blaschke T. Adherence to medication. N Engl J Med 2005:353:487–497.
38. Smith LD. Medication refusals and the rehospitalized mentally ill inmate. Hosp Community Psychiatry 1989;40:491–496.
39. Marcus SC, Zummo J, Pettit AR, et al. Antipsychotic adherence and rehospitalization in schizophrenia patients receiving oral versus long-acting injectable antipsychotics following hospital discharge. J Manag Care Spec Pharm 2015;21:754–768.
40. Mattick RP, Breen C, Kimber J, et al. Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. Cochrane Database Syst Rev 2009:CD002209.
41. McKee J, Penn JV, Koranek A. Psychoactive medication misadventuring in correctional health care. J Correct Health Care 2014;20:249–260.
42. Pilkinton PD, Pilkinton JC. Prescribing in prison: minimizing psychotropic drug diversion in correctional practice. J Correct Health Care 2014;20:95–104.
43. Burns KA. The top ten reasons to limit prescription of controlled substances in prisons. J Am Acad Psychiatry Law 2009;37:50–52.
44. Hanley MJ, Kenna GA. Quetiapine: treatment for substance abuse and drug of abuse. Am J Health Syst Pharm 2008;65:611–618.
45. Pierre JM, Shnayder I, Wirshing DA, et al. Intranasal quetiapine abuse. Am J Psychiatry 2004;161:1718.
46. Tamburello AC. Prescribed medication abuse: limitless creativity. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 165–169.
47. Pacino M, Santucci B, Maremmani I. Requests for quetiapine from jailed substance abusers: are they a form of abuse or self-medication in response to long-term opioid dysphoria? Heroin Addict Relat Clin Probl 2014;16:35–40.
48. Hilliard WT, Barloon L, Farley P, et al. Bupropion diversion and misuse in the correctional facility. J Correct Health Care 2013;19:211–217.
49. Penn J, McKee J. Personal communication. May 2016.
50. Namdari B. Venlafaxine abuse in a patient with schizophrenia and prior history of substance dependence: a case report. J Addict Dis 2013;32:393–395.
51. Quaglio G, Schifano F, Lugoboni F. Venlafaxine dependence in a patient with a history of alcohol and amineptine misuse. Addiction 2008;103:1572–1574.
52. Sattar SP, Grant KM, Bhatia SC. A case of venlafaxine abuse. N Engl J Med 2003;348:764–765; discussion 764–765.
53. Francesconi G, Orsolini L, Papanti D, et al. Venlafaxine as the 'baby ecstasy'? Literature overview and analysis of web-based misusers' experiences. Hum Psychopharmacol 2015;30:255–261.
54. Mitchell MD, Gehrman P, Perlis M, et al. Comparative effectiveness of cognitive behavioral therapy for insomnia: a systematic review. BMC Fam Pract 2012;13:40.
55. Pittenger C, Desan PH. Gabapentin abuse, and delirium tremens upon gabapentin withdrawal. J Clin Psychiatry 2007;68:483–484.
56. Kruszewski SP, Paczynski RP, Kahn DA. Gabapentin-induced delirium and dependence. J Psychiatr Pract 2009;15:314–319.
57. Reccoppa L, Malcolm R, Ware M. Gabapentin abuse in inmates with prior history of cocaine dependence. Am J Addict 2004;13:321–323.
58. DelPaggio D. Psychotropic medication abuse in correctional facilities. Bay Area Psychopharmacology Newsletter 2005;8:1–6.
59. Prommer EE. Topical analgesic combinations for bortezomib neuropathy. J Pain Symptom Manage 2009;37:e3–5.
60. Hamel E. Personal communication. October 2013.
61. Sullivan G, Davis S. Is carbamazepine a potential drug of abuse? J Psychopharmacol 1997;11:93–94.
62. Stuppaeck CH, Whitworth AB, Fleischhacker WW. Abuse potential of carbamazepine. J Nerv Ment Dis 1993;181:519–520.
63. Glancy G, Trestman R, Metzner J, et al. Correctional psychiatry: journey into the heart of darkness. In: American Psychiatric Association. Atlanta (GA); 2016.
64. Tamburello AC, Kathpal A, Reeves R. Characteristics of inmates who misuse medication. J Correct Health Care 2017;23:449–458.
65. Tamburello AC, Lieberman JA, Baum RM, et al. Successful removal of quetiapine from a correctional formulary. J Am Acad Psychiatry Law 2012;40:502–508.
66. Reeves R. Guideline, education, and peer comparison to reduce prescriptions of benzodiazepines and low-dose quetiapine in prison. J Correct Health Care 2012;18:45–52.
67. Volpe KD. Intervention reduces abuse of psychotropic medications in correctional facilities. Pharmacy Practice News 2005;32.
68. Fazel S, Danesh J. Serious mental disorder in 23000 prisoners: a systematic review of 62 surveys. Lancet 2002;359:545–550.
69. Ireland JL, Culpin V. The relationship between sleeping problems and aggression, anger, and impulsivity in a population of juvenile and young offenders. J Adolesc Health 2006;38:649–655.
70. Haynes VS, Zhu B, Stauffer VL, et al. Long-term healthcare costs and functional outcomes associated with lack of remission in schizophrenia: a post-hoc analysis of a prospective observational study. BMC Psychiatry 2012;12:222.
71. Laursen TM, Munk-Olsen T, Vestergaard M. Life expectancy and cardiovascular mortality in persons with schizophrenia. Curr Opin Psychiatry 2012;25:83–88.
72. Barnes TR. Schizophrenia Consensus Group of British Association for Psychopharmacology. Evidence-based guidelines for the pharmacological treatment of schizophrenia: recommendations from the British Association for Psychopharmacology. J Psychopharmacol 2011;25:567–620.
73. Hartling L, Abou-Setta A, Dursun S, et al. Antipsychotics in adults with schizophrenia: comparative effectiveness of first-generation versus second-generation medications: a systematic review and meta-analysis. Ann Intern Med 2012;157:498–511.
74. Doghramji PP. Integrating modern concepts of insomnia and its contemporary treatment into primary care. Postgrad Med 2014;126:82–101.
75. Lopez LV, Kane JM. Recommendations for the monitoring of serum concentrations of antipsychotic drugs in the treatment of schizophrenia. J Clin Psychiatry 2015;76:1249–1250.
76. Labbate LA. Handbook of Psychiatric Drug Therapy. 6th ed. Philadelphia (PA): Wolters Kluwer Health/Lippincott Williams & Wilkins; 2010. [ebook]
77. Scarff JR, Casey DA. Newer oral atypical antipsychotic agents: a review. P T 2011;36:832–838.
78. Buchanan R, Kreyenbuhl J, Kelly D, et al. The 2009 schizophrenia PORT psychopharmacological treatment recommendations and summary statements. Schizophr Bull 2010;36:71–93.
79. Bowring v. Godwin, 551 F.2d 44, 4th Cir.; 1977.
80. Balbuena L, Mela M, Wong S, et al. Does clozapine promote employability and reduce offending among mentally disordered offenders? Can J Psychiatry 2010;55:50–56.

81. Martin A, O'Driscoll C, Samuels A. Clozapine use in a forensic population in a New South Wales prison hospital. Aust N Z J Psychiatry 2008;42:141–146.
82. Mela M, Depiang G. Clozapine's effect on recidivism among offenders with mental disorders. J Am Acad Psychiatry Law 2016;44:82–90.
83. Sarlon E, Duburcq A, Neveu X, et al. Imprisonment, alcohol dependence and risk of delusional disorder: a cross-sectional study. Rev Epidemiol Sante Publique 2012;60:197–203.
84. Griffiths EV, Willis J, Spark MJ. A systematic review of psychotropic drug prescribing for prisoners. Aust N Z J Psychiatry 2012;46:407–421.
85. Fovet T, Geoffroy PA. Individuals with bipolar disorder and their relationship with the criminal justice system: a critical review. Psychiatr Serv 2015;66:348–353.
86. Chang Z, Larsson H, Lichtenstein P, et al. Psychiatric disorders and violent reoffending: a national cohort study of convicted prisoners in Sweden. Lancet Psychiatry 2015;2:891–900.
87. Li I BA, Reeves R. Hypnotic agents and controlled substances. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 155–159.
88. Sanford M, Dhillon S. Lurasidone: a review of its use in adult patients with bipolar I depression. CNS Drugs 2015;29:253–263.
89. Ghaemi S, Hsu D, Soldani F, et al. Antidepressants in bipolar disorder: the case for caution. Bipolar Disord 2003;5:421–433.
90. Care NCoCH. Standards for health services in jails and prisons. Standard I-03 Forensic Information (Important). Chicago (IL): NCCHC; 2008.
91. Depakote ER (divalproex sodium) tablets prescribing information. [Accessed 2016 Oct 9.] Available from: http://www.accessdata.fda.gov/drugsatfda_docs/label/2008/021168s015lbl.pdf.
92. Kamath J, Zhang W, Kesten K, et al. Algorithm-driven pharmacological management of bipolar disorder in Connecticut prisons. Int J Offender Ther Comp Criminol 2013;57:251–264.
93. Kamath J, Wakai S, Zhang W, et al. Adaptation of the Texas implementation medication algorithm for bipolar disorder in adult female offenders. Int J Offender Ther Comp Criminol 2016;60:1315–1326.
94. Trestman R, Appelbaum K, Metzner J. Personal communication. January 2016.
95. Suppes T, Dennehy EB. TIMA procedural manual: bipolar disorder algorithms. [Accessed 2019 Oct 12.] Available from: https://www.sccgov.org/sites/mhd/Providers/PharmacyInformation/MedicationAppendices/TMAP-Bipolar.pdf.
96. Kamath J, Temporini HD, Quarti S, et al. Psychiatric use and utility of divalproex sodium in Connecticut prisons. Int J Offender Ther Comp Criminol 2008;52:358–370.
97. Muller-Oerlinghausen B, Lewitzka U. Lithium reduces pathological aggression and suicidality: a mini-review. Neuropsychobiology 2010;62:43–49.
98. Perugi G, Hantouche E, Vannucchi G, et al. Cyclothymia reloaded: a reappraisal of the most misconceived affective disorder. J Affect Disord 2015;183:119–133.
99. Cassau JS, Goodwin DE. The phenomenology and course of depressive syndromes in pre-trial detention. Int J Law Psychiatry 2012;35:231–235.
100. Weber J, Siddiqui MA, Wagstaff AJ, et al. Low-dose doxepin: in the treatment of insomnia. CNS Drugs 2010;24:713–720.
101. Inventory of Depressive Symptomatology (IDS) and Quick Inventory of Depressive Symptomatology (QIDS). [Accessed 2019 Oct 12.] Available at: http://www.ids-qids.org/.
102. Harner HM, Budescu M. Sleep quality and risk for sleep apnea in incarcerated women. Nurs Res 2014;63:158–169.
103. Cameron IM, Reid IC, MacGillivray SA. Efficacy and tolerability of antidepressants for sub-threshold depression and for mild major depressive disorder. J Affect Disord 2014;166:48–58.
104. Elger BS. Management of sleep complaints in correctional settings. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 85–89.
105. Lam RW, Kennedy SH, Grigoriadis S, et al. Canadian Network for Mood and Anxiety Treatments (CANMAT) clinical guidelines for the management of major depressive disorder in adults. III. Pharmacotherapy. J Affect Disord 2009;117 Suppl 1:S26–43.
106. Bond DJ, Hadjipavlou G, Lam RW, et al. The Canadian Network for Mood and Anxiety Treatments (CANMAT) task force recommendations for the management of patients with mood disorders and comorbid attention-deficit/hyperactivity disorder. Ann Clin Psychiatry 2012;24:23–37.
107. McCall C, McCall WV. What is the role of sedating antidepressants, antipsychotics, and anticonvulsants in the management of insomnia? Curr Psychiatry Rep 2012;14:494–502.
108. Ourada JD, Appelbaum KL. Intoxication and drugs in facilities. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 123–127.
109. Rush AJ, Trivedi MH, Wisniewski SR, et al. Bupropion-SR, sertraline, or venlafaxine-XR after failure of SSRIs for depression. N Engl J Med 2006;354:1231–1242.
110. Andreoli SB, Dos Santos MM, Quintana MI, et al. Prevalence of mental disorders among prisoners in the state of Sao Paulo, Brazil. PLoS One 2014;9:e88836.
111. Hodgins S, De Brito S, Chhabra P, et al. Anxiety disorders among offenders with antisocial personality disorders: a distinct subtype? Can J Psychiatry 2010;55:784–791.
112. Rand MR, Sabol WJ. Alcohol and crime: data from 2002 to 2008. [Accessed 2016 Feb 12.] Available from: http://www.bjs.gov/index.cfm?ty=pbdetail&iid=2313.
113. Katzman MA, Bleau P, Blier P, et al. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress and obsessive-compulsive disorders. BMC Psychiatry 2014;14 Suppl 1:S1.
114. Bandelow B, Sher L, Bunevicius R, et al. Guidelines for the pharmacological treatment of anxiety disorders, obsessive-compulsive disorder and posttraumatic stress disorder in primary care. Int J Psychiatry Clin Pract 2012;16:77–84.
115. Croft M, Mayhew R. Prevalence of chronic non-cancer pain in a UK prison environment. Br J Pain 2015;9:96–108.
116. Bilodeau M, Simon T, Beauchamp MH, et al. Duloxetine in adults with ADHD: a randomized, placebo-controlled pilot study. J Atten Disord 2014;18:169–175.
117. Andrisano C, Chiesa A, Serretti A. Newer antidepressants and panic disorder: a meta-analysis. Int Clin Psychopharmacol 2013;28:33–45.
118. Bossini L, Casolaro I, Koukouna D, et al. Off-label uses of trazodone: a review. Expert Opin Pharmacother 2012;13:1707–1717.

119. Goff A, Rose E, Rose S, et al. Does PTSD occur in sentenced prison populations? A systematic literature review. Crim Behav Ment Health 2007;17:152–162.
120. Briere J, Agee E, Dietrich A. Cumulative trauma and current posttraumatic stress disorder status in general population and inmate samples. Psychol Trauma 2016;8:439–446.
121. Saxon AJ, Davis TM, Sloan KL, et al. Trauma, symptoms of posttraumatic stress disorder, and associated problems among incarcerated veterans. Psychiatr Serv 2001;52:959–964.
122. Carson EA, Sabol WJ. Prisoners in 2011. Available from: www.bjs.gov/content/pub/pdf/p11.pdf. [Accessed 2016 Feb 12.]
123. Kinlock TW, Gordon MS, Schwartz RP, et al. A study of methadone maintenance for male prisoners: 3-month postrelease outcomes. Crim Justice Behav 2008;35:34–47.
124. Struckman-Johnson C, Struckman-Johnson D. Sexual coercion rates in seven midwestern prison facilities for men. Prison J 2008;80:616–627.
125. Groot E, Kouyoumdjian FG, Kiefer L, et al. Drug toxicity deaths after release from incarceration in Ontario, 2006–2013: review of coroners' cases. PLoS One 2016;11:e0157512.
126. De Jongh A, Resick PA, Zoellner LA, et al. Critical analysis of the current treatment guidelines for complex PTSD in adults. Depress Anxiety 2016;33:359–369.
127. Ardino V, Milani L, Di Blasio P, et al. Assessment of complex PTSD in prison populations: the role of CECA-Q (abstract). Eur J Psychotramatol 2011;2:17.
128. Saleh FM, Grudzinskas AJ, Malin HM. Treatment of incarcerated sex offenders. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 336–340.
129. Puetz TW, Youngstedt SD, Herring MP. Effects of pharmacotherapy on combat-related PTSD, anxiety, and depression: a systematic review and meta-regression analysis. PLoS One 2015;10:e0126529.
130. Alderman CP, Condon JT, Gilbert AL. An open-label study of mirtazapine as treatment for combat-related PTSD. Ann Pharmacother 2009;43:1220–1226.
131. Schwartz TL, Goradia V. Managing insomnia: an overview of insomnia and pharmacologic treatment strategies in use and on the horizon. Drugs Context 2013:212257.
132. Hermes E, Sernyak M, Rosenheck R. The use of second generation antipsychotics for post-traumatic stress disorder in a US Veterans Health Administration Medical Center. Epidemiol Psychiatr Sci 2014;23:281–288.
133. Schwaebe C. Learning to pass: sex offenders' strategies for establishing a viable identity in the prison general population. Int J Offender Ther Comp Criminol 2005;49:614–625.
134. Chain S, Brizendine B. Group psychotherapy. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 229–234.
135. Glancy G, Treffers S. Adjustment disorders. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 95–98.
136. Casey P. Adjustment disorder: epidemiology, diagnosis and treatment. CNS Drugs 2009;23:927–938.
137. Trestman R. Aggression. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 275–281.
138. Felthous AR, Stanford MS. A proposed algorithm for the pharmacotherapy of impulsive aggression. J Am Acad Psychiatry Law 2015;43:456–467.
139. Arciniegas DB, Wortzel HS. Emotional and behavioral dyscontrol after traumatic brain injury. Psychiatr Clin North Am 2014;37:31–53.
140. Allely CS. Prevalence and assessment of traumatic brain injury in prison inmates: a systematic PRISMA review. Brain Inj 2016;30:1161–1180.
141. Shiroma EJ, Pickelsimer EE, Ferguson PL, et al. Association of medically attended traumatic brain injury and in-prison behavioral infractions: a statewide longitudinal study. J Correct Health Care 2010;16:273–286.
142. Glancy G, Knott T. Part I: the psychopharmacology of long-term aggression–toward an evidence-based algorithm. CPA Bull 2002;34:13–18.
143. Glancy G, Knott T. Part II: the psychopharmacology of long-term aggression–toward an evidence-based algorithm. CPA Bull 2002;34:19-24.
144. Glancy G, Knott T. Psychopharmacology of violence: part IV. J Am Acad Psychiatry Law Newsletter 2003;28:12–13.
145. Glancy G, Knott T. Part III: the psychopharmacology of long-term aggression–toward an evidence-based algorithm. CPA Bull 2003;35:13–18.
146. Jones RM, Arlidge J, Gillham R, et al. Efficacy of mood stabilisers in the treatment of impulsive or repetitive aggression: systematic review and meta-analysis. Br J Psychiatry 2011;198:93–98.
147. Ebrahim GM, Gibler B, Gacono CB, et al. Patient response to clozapine in a forensic psychiatric hospital. Hosp Community Psychiatry 1994;45:271–273.
148. Lindenmayer JP, Kotsaftis A. Use of sodium valproate in violent and aggressive behaviors: a critical review. J Clin Psychiatry 2000;61:123–128.
149. Stein DJ, Simeon D, Frenkel M, et al. An open trial of valproate in borderline personality disorder. J Clin Psychiatry 1995;56:506–510.
150. Cowdry RW, Gardner DL. Pharmacotherapy of borderline personality disorder. Alprazolam, carbamazepine, trifluoperazine, and tranylcypromine. Arch Gen Psychiatry 1988;45:111–119.
151. Mattes JA. Oxcarbazepine in patients with impulsive aggression: a double-blind, placebo-controlled trial. J Clin Psychopharmacol 2005;25:575–579.
152. Haas S, Vincent K, Holt J, et al. Divalproex: a possible treatment alternative for demented, elderly aggressive patients. Ann Clin Psychiatry 1997;9:145–147.
153. Kunik ME, Puryear L, Orengo CA, et al. The efficacy and tolerability of divalproex sodium in elderly demented patients with behavioral disturbances. Int J Geriatr Psychiatry 1998;13:29–34.
154. Hollander E, Allen A, Lopez RP, et al. A preliminary double-blind, placebo-controlled trial of divalproex sodium in borderline personality disorder. J Clin Psychiatry 2001;62:199–203.
155. Comai S, Tau M, Gobbi G. The psychopharmacology of aggressive behavior: a translational approach: part 1: neurobiology. J Clin Psychopharmacol 2012;32:83–94.
156. Buckley P, Ibrahim Z, Singer B, et al. Aggression and schizophrenia: efficacy of risperidone. J Am Acad Psychiatry Law 1997;25:173–181.

157. Spivak B, Shabash E, Sheitman B, et al. The effects of clozapine versus haloperidol on measures of impulsive aggression and suicidality in chronic schizophrenia patients: an open, nonrandomized, 6-month study. J Clin Psychiatry 2003;64:755–760.

158. Clozapine prescribing information. [Accessed 2016 June 15.] Available from: http://www.accessdata.fda.gov/drugsatfda_docs/label/2010/019758s062lbl.pdf.

159. Czobor P, Volavka J, Meibach RC. Effect of risperidone on hostility in schizophrenia. J Clin Psychopharmacol 1995;15:243–249.

160. Coccaro EF, Astill JL, Herbert JL, et al. Fluoxetine treatment of impulsive aggression in DSM-III-R personality disorder patients. J Clin Psychopharmacol 1990;10:373–375.

161. Salzman C, Wolfson AN, Schatzberg A, et al. Effect of fluoxetine on anger in symptomatic volunteers with borderline personality disorder. J Clin Psychopharmacol 1995;15:23–29.

162. Fava M, Rosenbaum J, Pava J, et al. Anger attacks in unipolar depression, Part 1: clinical correlates and response to fluoxetine treatment. Am J Psychiatry 1993;150:1158–1163.

163. Glancy G. A possible link between SSRIs and anti-social behaviours. J Forens Psychiatry 1996;7:387–391.

164. Allan E, Alpert M, Sison C, et al. Adjunctive nadolol in the treatment of acutely aggressive schizophrenic patients. J Clin Psychiatry 1996;57:455–459.

165. Caspi N, Modai I, Barak P, et al. Pindolol augmentation in aggressive schizophrenic patients: a double-blind crossover randomized study. Int Clin Psychopharmacol 2001;16:111–115.

166. Connor DF, Ozbayrak KR, Benjamin S, et al. A pilot study of nadolol for overt aggression in developmentally delayed individuals. J Am Acad Child Adolesc Psychiatry 1997;36:826–834.

167. Greendyke RM, Kanter DR. Therapeutic effects of pindolol on behavioral disturbances associated with organic brain disease: a double-blind study. J Clin Psychiatry 1986;47:423–426.

168. Cherek DR, Moeller FG, Khan-Dawood F, et al. Prolactin response to buspirone was reduced in violent compared to nonviolent parolees. Psychopharmacology (Berl) 1999;142:144–148.

169. Lebert F, Pasquier F, Petit H. Behavioral effects of trazodone in Alzheimer's disease. J Clin Psychiatry 1994;55:536–538.

170. Felthous AR, Stanford MS. A proposed algorithm for the pharmacotherapy of impulsive aggression. J Am Acad Psychiatry Law 2015;43:465.

171. Trestman RL. Behind bars: personality disorders. J Am Acad Psychiatry Law 2000;28:232–235.

172. Soloff PH. Algorithms for pharmacological treatment of personality dimensions: symptom-specific treatments for cognitive-perceptual, affective, and impulsive-behavioral dysregulation. Bull Menninger Clin 1998;62:195–214.

173. Herpertz SC, Zanarini M, Schulz CS, et al. World Federation of Societies of Biological Psychiatry (WFSBP) guidelines for biological treatment of personality disorders. World J Biol Psychiatry 2007;8:212–244.

174. Khalifa N, Duggan C, Stoffers J, et al. Pharmacological interventions for antisocial personality disorder. Cochrane Database Syst Rev 2010;8:CD007667.

175. Stoffers J, Vollm BA, Rucker G, et al. Pharmacological interventions for borderline personality disorder. Cochrane Database Syst Rev 2010;6:CD005653.

176. Excellence NIfHaC. Borderline personality disorder: treatment, management and prevention. NICE Clinical Guideline 78. [Accessed 2016 May 1.] Available from: http://www.nice.org.uk/nicemedia/live/11765/42993/42993.pdf.

177. Excellence NIfHaC. Antisocial personality disorder: treatment, management and prevention. NICE Clinical Guideline 77. [Accessed 2016 Nov 15.] Available from: https://www.nice.org.uk/guidance/cg77.

178. Appelbaum K, Murphy K. Attention deficit disorders. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 200–204.

179. Namdari B. Venlafaxine abuse in a patient with schizophrenia and prior history of substance dependence: a case report. J Addict Dis 2013;32:393–395.

180. Excellence NIfHaC. Attention deficit hyperactivity disorder: diagnosis and management. [Accessed 2016 June 21.] Available from: https://www.nice.org.uk/guidance/CG72/chapter/Recommendations#treatment-of-adults-with-adhd.

181. Appelbaum KL. Stimulant use under a prison treatment protocol for attention-deficit/hyperactivity disorder. J Correct Health Care 2011;17:218–225.

182. Tamburello A, Metzner J, Ferguson E, et al. A Proposed Resource Document on Prescribing in Corrections. In: Annual Meeting of the American Academy of Psychiatry and the Law. Portland (OH).

183. Glancy G. Personal communication. October 2019.

184. Elger BS. Prisoners' insomnia: to treat or not to treat? Medical decision-making in places of detention. Med Sci Law 2008;48:307–316.

185. Dewa LH, Kyle SD, Hassan L, et al. Prevalence, associated factors and management of insomnia in prison populations: an integrative review. Sleep Med Rev 2015;24:13–27.

186. Qaseem A, Kansagara D, Forciea MA, et al. Clinical Guidelines Committee of the American College of Physicians. Management of chronic insomnia disorder in adults: a clinical practice guideline from the American College of Physicians. Ann Intern Med 2016;165:125–133.

187. Schutte-Rodin S, Broch L, Buysse D, et al. Clinical guideline for the evaluation and management of chronic insomnia in adults. J Clin Sleep Med 2008;4:487–504.

188. Morin CM, Benca R. Chronic insomnia. Lancet 2012;379:1129–1141.

189. Culpepper L, Wingertzahn MA. Over-the-counter agents for the treatment of occasional disturbed sleep or transient insomnia: a systematic review of efficacy and safety. Prim Care Companion CNS Disord 2015;17(6).

190. Everitt H, Baldwin DS, Stuart B, et al. Antidepressants for insomnia in adults. Cochrane Database Syst Rev 2018;5:CD010753.

191. Wakeman SE, Rich JD. Pharmacotherapy for substance use disorders within correctional facilities. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 260–265.

192. Fazel S, Bains P, Doll H. Substance abuse and dependence in prisoners: a systematic review. Addiction 2006;101:181–191.

193. Practitioners RCoG. Safer prescribing in prisons, guidance for clinicians. [Accessed 2019 Oct 12.] Available from: http://www.rpharms.com/news-story-downloads/prescribinginprison.pdf.

194. Excellence NIfHaC. Drug use disorders in adults (NICE quality standard). [Accessed 2019 Oct 12.] Available at: http://www.nice.org.uk/guidance/qs23.

195. Sadock BJ, Sadock VA, Ruiz P, et al. Kaplan and Sadock's Comprehensive Textbook of Psychiatry. 9th ed. Philadelphia (PA): Wolters Kluwer Health/Lippincott Williams & Wilkins; 2009.

196. Burns KA. Pharmacotherapy in correctional settings. In: Scott CL, ed. Handbook of Correctional Mental Health. 2nd ed. Washington (DC): American Psychiatric Association Publishing, Inc; 2010. pp. 321–344.

197. Binswanger IA, Nowels C, Corsi KF, et al. Return to drug use and overdose after release from prison: a qualitative study of risk and protective factors. Addict Sci Clin Pract 2012;7:3.

198. Hairston P, Binswanger I. Programming. In: Trestman RL, Appelbaum KL, Metzner JL, eds. Oxford Textbook of Correctional Psychiatry. 1st ed. New York (NY): Oxford University Press; 2015. pp. 247–253.

199. Mattick RP, Breen C, Kimber J, et al. Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. Cochrane Database Syst Rev 2009:CD002209.

200. Gordon MS, Kinlock TW, Schwartz RP, et al. A randomized clinical trial of methadone maintenance for prisoners: findings at 6 months post-release. Addiction 2008;103:1333–1342.

201. Dolan KA, Shearer J, MacDonald M, et al. A randomised controlled trial of methadone maintenance treatment versus wait list control in an Australian prison system. Drug Alcohol Depend 2003;72:59–65.

202. Mattick RP, Breen C, Kimber J, et al. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. Cochrane Database Syst Rev 2014;2:CD002207.

203. Larney S, Toson B, Burns L, et al. Effect of prison-based opioid substitution treatment and post-release retention in treatment on risk of re-incarceration. Addiction 2012;107:372–380.

204. Larney S, Gisev N, Farrell M, et al. Opioid substitution therapy as a strategy to reduce deaths in prison: retrospective cohort study. BMJ Open 2014;4:e004666.

205. Rich JD, McKenzie M, Larney S, et al. Methadone continuation versus forced withdrawal on incarceration in a combined US prison and jail: a randomised, open-label trial. Lancet 2015;386:350–359.

206. Dunsieth NW, Jr., Nelson EB, Brusman-Lovins LA, et al. Psychiatric and legal features of 113 men convicted of sexual offenses. J Clin Psychiatry 2004;65:293–300.

207. American Psychiatric Association. Dangerous Sex Offenders: A Task Force Report of the American Psychiatric Association. 1st ed. Washington (DC): American Psychiatric Association; 1999.

208. Thibaut F, De La Barra F, Gordon H, et al. The World Federation of Societies of Biological Psychiatry (WFSBP) guidelines for the biological treatment of paraphilias. World J Biol Psychiatry 2010;11:604–655.

209. Cislo AM, Trestman R. Challenges and solutions for conducting research in correctional settings: the U.S. experience. Int J Law Psychiatry 2013;36:304–310.