Alcoholism and American healthcare: The case for a patient safety approach

Lorri Zipperer, Ruth Ryan and Barbara Jones

Abstract
Alcoholism, more professionally termed alcohol use disorder (AUD), is a widespread and costly behavioral health condition. The aims of this paper are to draw attention to systemic gaps in care for patients with AUD and advocate for patient safety leaders to partner with both the mainstream medical and substance abuse treatment communities to reduce harm in this patient population. The authors performed a narrative review of the literature on the current state of AUD treatment and patient safety, finding extensive evidence that patients with AUD usually go undiagnosed, unreferral and untreated. When they do receive AUD treatment, little evidence was found to indicate that a patient safety approach is incorporated into their care. Behavioral medicine is virgin territory for the patient safety movement. Medical care and behavioral medicine in the United States currently constitute two separate and unequal systems generally lacking in pathways of communication or care coordination for AUD patients. Significant barriers include institutional culture, individual and systemic bias against those with AUD, and health care infrastructure, especially the separation of medical and behavioral treatment. It is the authors’ conclusion that care of patients with AUD is unsafe. We advocate for the patient safety approach common in American hospitals to be extended to AUD treatment. Experienced patient safety leaders are in the strongest position to initiate collaboration between the mainstream medical and substance abuse treatment communities to reduce harm for this patient population.

Keywords
Safe practice, risk management, medication and drug error, patient safety, alcohol use disorder, diagnostic error

Current state
A 45-year-old male with a history of alcoholism and inability to remain sober has exhausted options for private care. Patient X was placed in a licensed short-term housing facility with care service limitations. During his stay, he had an episode of alcohol withdrawal, with violent outburst and psychological instability. Staff at the residential facility were unable to manage the situation, and had him moved to a large, inner-city trauma center for care. The patient was given a document with a physician’s name on it prior to accessing transport to the hospital, told to see this physician, driven to the hospital, and left at admissions, curbside. The driver left without confirming the patient was seen at the hospital or by the appropriate clinical team.

The day after drop-off, the family tried to obtain follow up information about the patient’s hospital care. They were told he had not been seen in the emergency room, and they could not account for his whereabouts. Later that day, he was discovered exiting a manhole on the hospital grounds, naked.

Patient X died two years later of acute alcohol and medication intoxication.

Alcoholism, more professionally termed alcohol use disorder (AUD), is a widespread and costly behavioral health condition. According to the Centers for Disease Control and Prevention (CDC), it constitutes the third-leading preventable cause of death in the US—after tobacco use and the combination of poor diet and sedentary lifestyle. The scientific definition of AUD is “A chronic brain disorder marked by compulsive drinking, loss of control over alcohol use, and negative emotions when not drinking … Recovery is possible regardless of severity.”

Many factors influence how patients experiencing AUD are treated in healthcare settings including negative socioeconomic perceptions associated with persons with AUD. Widespread bias toward those with AUD is often linked to an assumption among healthcare professionals, patients,
family members and the public-at-large that treatment is useless and will be unsuccessful. The disorder tends to be falsely viewed as moral turpitude, a character flaw, or a failure of will, rather than a treatable behavioral disorder.3 The stigma and implicit biases directed at patients with AUD is widespread in many healthcare settings, including inpatient and outpatient, medical and behavioral.4

Much has been said and written about the physical, psychological, and social harms of AUD. However, the patient safety community has given little attention to the AUD patient population, as evidenced by the lack of patient safety research and action in the behavioral health setting. Few resources have been identified to address patient safety issues for this population in research, diagnosis, treatment, programmatic initiatives or outcomes. The patient safety community has yet to explicitly consider, adapt, and apply patient safety concepts and evidence-driven actions to the care of these patients, as reflected in the paucity of articles and initiatives on AUD found in the patient safety space. It is far more common to find research and published reports about safety issues due to substance abuse in clinicians than the safety of patients with the disorder.

The purpose of this narrative review is to draw attention to systemic gaps in care for patients with AUD and advocate for patient safety leaders to partner with both the mainstream medical and substance abuse treatment communities to reduce harm in this patient population. The search consisted of review of databases including PubMed, SCOPUS, OVID, Medline, and EMBASE and a review of online patient safety and addiction resources such as the AHRQ’s Patient Safety Network, books, governmental reports, websites, journals, and reports. The broad database search was undertaken by a healthcare librarian exploring concepts associated with: alcohol addiction, abuse, OR dependance, OR alcohol use disorder OR alcohol use disorders OR alcoholic intoxication and outcomes, care continuity, treatment effectiveness, patient safety, medical errors, healthcare quality OR screening. The time frame was open as newer material relevant to the topic was limited. The results were initially reviewed by a content curator with 20-plus years’ experience assessing the medical literature for relevance to a broad patient safety audience (L. Zipperer). The results from this reviewer’s analysis of safety concepts, rather than generic quality concepts, were then shared with the other authors who used who used these preliminary findings in addition to their individual searches to support their final contributions. The resulting paper highlights barriers to safe treatment, as well as tactics and systems interventions that are available to ensure safe care for the AUD patient population.

Two separate and unequal systems of care
Convergence of the challenges of COVID-19 and the opioid epidemic have shed light on weaknesses and inequities in healthcare, particularly for marginalized5,6 communities6 whose plights are less “sexy” but still in need of attention, such as homelessness, obesity, or alcoholism.7

The National Academy of Medicine (NAM) takes a firm position on treatment of alcohol use disorders. A 2020 NAM Perspective describes treatment of patients with AUD as inadequate and systematically divorced from traditional healthcare, creating two separate, unequal, and non-communicating systems: one using behavioral treatment approaches and the other using classical medical approaches.6,8 Few acute hospitals maintain inpatient units or beds for behavioral disorders9,10—even as American hospitals and large academic centers aggressively buy up other hospital systems and construct new buildings for more lucrative services like ambulatory surgery and cancer treatment.11 Private-pay residential treatment facilities and partial hospitalization programs are untethered from main healthcare delivery systems and therefore lack resources to fully implement safe, efficient, and holistic treatment programs. This segregation of AUD treatment from mainstream healthcare exacerbates the silo effect, representing a system failure that perpetuates uncoordinated care, loss of information upon transfer, and lack of integration of addiction specialists into the medical team caring for persons suffering from AUD.12

Undiagnosed, unreferred, untreated
Patients with AUD are over-represented in hospital emergency departments (ED) which may be due to a lack of AUD resources in the community to proactively care for the population. As a result, the ED is situated as a potential location for identifying undiagnosed AUD, but these patients are not typically evaluated for the condition. Consequently, they are not typically evaluated for diagnosis, referral, or initial treatment plans while at an entry point of the healthcare system, and there is the potential for gender bias that leads to underdiagnosis in women.13 Likewise in the inpatient setting, patients with AUD are over-represented, accounting for as many as 31% of hospitalizations, and there are likely others that have not been identified.14,15 Inpatient stays provide yet another opportunity to screen and identify AUD.8 However, hospitals fail to screen patients for AUD, even when they present with blood alcohol concentrations signifying severe intoxication16,17 or in trauma centers where alcohol and substance abuse are commonly a root of accidents.18

In the ambulatory primary care setting, 20% of patients present with medical problems related to alcohol use, but physicians often manage the presenting problem without addressing the underlying alcohol use disorder.19

In all these settings—emergency, inpatient, and ambulatory care—clinicians report they feel unprepared and untrained to detect, refer or treat people with AUD.4,20–23 The result is that patients go unscreened and undiagnosed, and therefore are
left vulnerable to worsening conditions.\textsuperscript{24,25} As a result fewer than 10\% of those with alcohol use disorder receive any treatment,\textsuperscript{12} and fewer than 2\% have ever received medications for AUD.\textsuperscript{8,26} There are missed opportunities for identification and treatment of AUD patients, resulting in preventable death and harm and negative financial, emotional and management implications for a large portion of patients seen in all of the traditional healthcare settings across the US.

**AUD through the patient safety lens**

There are two key reasons why patients are at increased risk for harm if they have AUD: 1) if AUD is not recognized at all and, 2) if recognized and referred, the treatment is fragmented and suboptimal. There are three overarching factors that contribute to the degradation of safety in the care of AUD patients: stigma and biases, poor organizational culture, and misaligned infrastructure.

*Stigma and Biases:* Stigma is defined as a mark of disgrace associated with a particular circumstance, quality, or person. Bias is a tendency, inclination, or prejudice toward or against something or someone. Considered either individually or together, they are a primary underlying factor contributing to the unsafe care of patients with AUD at all levels. Societal norms and stereotypes among lawmakers, insurers, hospital administrators, healthcare practitioners, and the public negatively affect those with AUD.\textsuperscript{27,28} Persons with alcohol dependence are often viewed as not worth the time and effort to treat because it is assumed they will just go back to drinking. As Leggio and Lee state, “This deficiency reflects nihilism, stigma, and a failure to link behavioral and traditional medical research.” (\textsuperscript{12}p.1214) The unaddressed influence of stigma and biases can result in:

- denial of care or provision of substandard care,
- loss of AUD patient trust leading to lack of willingness to engage,
- physical or mental abuse of AUD patients,
- referral of AUD patients to junior, possibly less qualified colleagues.\textsuperscript{28}

*Ineffective Organizational Culture:* Organizational culture is the manifestation of the attitudes, behaviors, beliefs, and expectations of the organization.\textsuperscript{29} Organizational culture strongly influences, even determines the actions and outcomes that occur within the facility, yet it remains understudied and underaddressed as an influence in addiction care. Recognizing the effect that a lack of safety culture has on treatment of AUD patients is a first step to identify the extent of failures and initiate change for this population. Patients may be harmed by attitudes and culture within the organization resulting in:

- uncoordinated care,\textsuperscript{30}
- tolerance of clinician biases against patients with substance abuse disorders,\textsuperscript{5}
- under-utilized or non-existent systems to report concerns, near-misses or mistakes,\textsuperscript{31}
- impact of professional disrespect\textsuperscript{32} fostered by medical system hierarchy that limits the application of training, skills, and knowledge, of the range of allied health professionals that interact in the behavioral health space,\textsuperscript{33}
- underdeveloped and underresourced improvement initiatives,
- non-existent organizational learning from failure.

*Misaligned Infrastructure:* Infrastructure is the skeleton on which success of behavioral health and medicine program implementation success is determined. Organizations or initiatives do what they are designed to do; therefore, infrastructure should ideally be planned, built, funded and updated to accord with the current healthcare culture to address gaps in care that degrade safety for patients with AUD. Weak infrastructure contributes to:

- lack of interoperability between electronic health record (EHR) systems that can contribute to poor information transfer, access, and quality. If the hospital system and the behavioral health system do not share the same EHR platform neither will be able to successfully access patient records resulting in potential for error.\textsuperscript{34}
- physical layouts that block easy visual access to patients,
- lack of processes that ensure patients transfer without incident or loss of information through the healthcare system as treatment needs change,\textsuperscript{35}
- lack of training programs that support and motivate staff competencies to support the work,\textsuperscript{13,36}
- poor staffing levels that minimize effective evaluation, diagnosis, treatment (and/or transfer when necessary),\textsuperscript{16,37–40}
- no structured effort to identify and inform failure analysis activities which include an actively used, updated, and reviewed database of safety incidents involving AUD patients,\textsuperscript{41}
- minimal resourcing of point-of-care training to ensure reliable screening, treatment, and transfers.

These factors will need to be addressed by the healthcare system at large. New patient-safety driven approaches need to be instituted by individual hospitals/health systems, carried out by clinicians, and supported by patients, families, and community members.

**Examining problems in AUD care as patient safety problems**

Table 1 includes a selected set of AUD care problems identified in the literature reviewed that are exacerbated by infrastructure barriers: threat of physical harms; diagnostic errors; medication errors; and care discontinuities in referrals, transfers and discharges. Error reduction strategies are suggested from the literature to illustrate what organizations and
| Safety Challenges                  | Care gaps What gets in the way of safety? | System-level Actions What can/should the organizational leadership do? | Safety Actions? What can/should the staff do? |
|-----------------------------------|------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------|
| Threat of Physical Harms          | • Inadequate screening for AUD           | • Design and implement forcing functions for AUD screening             | • Participate in systematic screening of patients for AUD<sup>38,39,42</sup> |
|                                   | • Inadequate risk assessment of AUD patients (Failure to assess for suicidality, self-harm, flight, and violence<sup>16,36,40,43</sup>) | • Develop protocols and train staff in risk assessment                  | • Participate in risk assessment of AUD patients |
|                                   | • Insufficient training in de-escalation techniques, particularly among nurses<sup>16,44</sup> | • Develop training for staff in de-escalation techniques               | • Participate in training on de-escalation techniques |
|                                   | • Inadequate discharge planning and follow-through protocols for AUD patients | • Design protocols for discharge planning and follow-through post discharge | • Follow protocols for discharge planning and follow through post discharge. |
| Diagnostic Errors                 | • Failure to diagnose AUD                | • Require systematic screening of patients in emergency departments, trauma centers, inpatient units, and primary care<sup>49</sup> | • Screen patients in all healthcare environments<sup>36,37,44</sup> with particular emphasis on undiagnosed population |
|                                   | • Insufficient recognition of dual physical or mental health diagnosis and or suicide risk<sup>36,40,45–48</sup> | • Design and implement a checklist initiative to encourage deeper examination of potential diagnoses<sup>50</sup> | • Access and apply readily available information, checklists and protocols for recognizing mental illness diagnoses<sup>47,50</sup> |
|                                   | • Overmedication of management errors    | • Provide access for cross training of medical and behavioral staff<sup>61</sup> | • Engage others and huddle to ensure other diagnostic options are considered |
| Medication Errors                 | • Limited awareness of medication mistakes in AUD patient care | • Support psychological safety to raise concerns and report medication problems | • Raise concerns and report medication-related instances |
|                                   | • Lack of mechanism to report medication incidents<sup>41</sup> | • Build and implement a reliable process for medication incident reporting<sup>52</sup> | • Ask management to provide information on reported medication incidents<sup>41</sup> |
|                                   | • Lack of care for medications and multidisciplinary consultation to treat AUD, prevent suicide or exacerbate existing mental illness<sup>45,53–55</sup> | • Engage leadership early on to develop and resource system-level cross disciplinary interventions to address medication errors<sup>35,41</sup> | • Seek relationships with individual primary care physicians, pharmacists and behavioral health specialists |
|                                   | • Failure to prescribe pharmacological treatment<sup>35,55–57</sup> | • Remediate institutional policy barriers to patient acceptance and prescribing medications for AUD | • Serve as a mentor to model use of pharmacological approaches to gain acceptance and use of the intervention |
|                                   | • Overreliance on polypharmacy as a shortcut to symptom management<sup>58</sup> | • Establish double-check process to assure appropriate prescribing | • Acknowledge the potential for biased decision making and enlist team members to assist as needed |
| Care Discontinuities in Referrals,| • Failure to Refer for AUD Treatment: Practitioners state that they feel unprepared and | • Provide and require in-service training on an AUD screening and referral tool such as S-BIRT | • Participate in training on a screening and referral tool |
|                                   | | | Screen for AUD and implement (continued) |
clinicians could do to improve patient safety for this patient population. Reorganizing how stigma, bias, culture and infrastructure inform attitudes, actions, assessments, and care can influence the patient experience. Embedding safe frontline processes, identifying actionable steps to mitigate the barriers listed above, and prioritizing safe treatment of AUD patients at the leadership level will result in a more holistic approach to care and safety of the AUD population. Staff will benefit from becoming aware of safety concepts, training to use them and tracking outcomes. Then patient safety becomes the norm rather than the exception.

Care gaps noted in the table would be recognized, reported, and discussed as safety issues using language embedded in patient safety discourse and research. Organizational-level actions systemic in nature and thus apt to change, if implemented successfully, more than one gap, would be aligned with distinct tactics that staff could use in their practice. The approach highlighted below could address the overarching influences of historic stigma and bias, poor organizational culture, and infrastructure weaknesses surrounding persons with AUD to help acknowledge the gaps as patient safety concerns and drive improvement.

### Desired future state

A 45-year-old male with a history of AUD and inability to remain sober has exhausted options for private care. Patient X was placed in a licensed residential facility where, upon admission, he was assigned a care team which included an advocate with training and lived experience in substance abuse treatment to assist in the patient’s management. During his stay, he experienced an episode of what was likely alcohol withdrawal, where he exhibited violent outbursts and psychological instability. The team
telephoned the local hospital regarding the transfer of the patient to their care. The patient’s AUD advocate assisted with his transition to higher level care.

The residential facility’s electronic health record was interoperable with the electronic health record in the receiving large inner-city safety-net trauma center. The patient was taken there by a staff driver who was trained to accompany and stay with the patient until the transfer was complete. Both the patient and the driver had a copy of a document with a physician’s name on it. The patient was received by the in-house care team consisting of an advance practice nurse who was an addiction specialist and a social worker. The care team retrieved the patient’s record during his admission to enhance communication across all team members, including the patient, about socioeconomic and medical factors that could influence care.

During his hospital stay, patient X received a thorough evaluation and treatment for his medical conditions as well his AUD. Prior to discharge, a comprehensive treatment plan was created and shared with the staff at his residential facility and, with the patient’s permission, his family. Referral to a clinician for ongoing management of his health needs and comprehensive treatment plan was also arranged.

Moving forward

Safety is one of the six domains of quality healthcare, and is often compromised in the diagnosis, referral, and treatment of patients with AUD. Behavioral medicine is virgin territory for the patient safety movement. Those working in the addiction community have yet to collectively embrace the safety science approach to reducing patient harm. The patient safety community engages patients, family members, clinicians, administrators, and other non-healthcare experts to work toward improvement. It is affiliated with mainstream medicine and is in the best position to help build a communication link between medical practitioners and addiction treatment staff and promote a systems-improvement, patient-safety approach to care.

Care of alcohol use disorder patients, at the time of this writing, is unsafe. Alcohol use disorder is a medical condition that warrants patient safety approaches and systems improvements to reduce failure and improve coordination of care. The application of patient safety concepts should be jump-started to reduce harm to this population, particularly harm resulting from stigma and bias, unsafe organizational culture, and inadequate infrastructure. Safety as an improvement model is presently lacking in the care of patients with AUD. Science, knowledge, passion, and compassion are needed to generate true systemic change for those with alcohol use disorder.

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ORCID iD

Lorri Zipperer https://orcid.org/0000-0002-8991-7055

References

1. Centers for Disease Control and Prevention. Alcohol and public health: alcohol-related disease impact. Annual average for United States 2011–2015. Alcohol-attributable deaths due to excessive alcohol use, all ages, https://nccd.cdc.gov/DPH_ARDI/Default/Default.aspx (accessed 12 March 2022).
2. National Institute on Alcohol Abuse and Alcoholism. Alcohol Facts and Statistics, https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/alcohol-facts-and-statistics (2021, accessed 12 March 2022).
3. Volkow N. Addressing the Stigma that Surrounds Addiction, https://www.drugabuse.gov/about-nida/noras-blog/2020/04/addressing-stigma-surrounds-addiction (2020, accessed 12 February, 2022).
4. van Boekel LC, Brouwers EP, van Weeghel J, et al. Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: systematic review. Drug Alcohol Depend 2013; 131: 23–35.
5. Yong E. How the pandemic defeated America. The Atlantic Online, https://www.theatlantic.com/magazine/archive/2020/09/coronavirus-american-failure/614191/ (2020, accessed 12 March 2022).
6. Atkins JA, Legreid Dopp A and Boone Temaner E. Combating the stigma of addiction—the need for a comprehensive health system approach. NAM Perspective, National Academy of Medicine, Washington (DC), https://nam.edu/combatting-the-stigma-of-addiction-the-need-for-a-comprehensive-health-system-approach/ (2020, accessed 2 July 2022).
7. O’Connor A. Alcohol abuse Is on the rise, but doctors too often fail to treat it. New York Times, https://www.nytimes.com/2021/07/12/well/live/alcohol-abuse-drinking-treatment. html (2021, accessed 12 March 2022).
8. Health care systems and substance abuse disorders. In: Substance Abuse and Mental Health Services Administration; Office of the Surgeon General. Facing addiction in America: the Surgeon General’s report on alcohol, drugs and health. Washington, DC: US Department of Health and Human Services, https://www.ncbi.nlm.nih.gov/books/NBK424848/#ch6.s1 (2016, accessed 12 March 2022).
9. Mukherjee D and Saxon V. “Psychological boarding” and community-based behavioral health crisis stabilization. Community Ment Health J 2019; 55: 375–384
10. Fuller DA, Sinclair E, Giller J, et al. Going, going, gone: trends and consequences of eliminating state psychiatric beds, 2016, Arlington (VA): Treatment Advocacy Center, https://www.treatmentadvocacyp.org/landing/documents/going-going-gone.pdf (2016, accessed 12 March 2022).
11. Schwartz K, Lopez E, Rae M, et al. What we know about provider consolidation. Kaiser Family Foundation Issue brief, https://www.kff.org/health-costs/issue-brief/what-we-know-about-provider-consolidation/ (2020, accessed 12 March 2022).
12. Leggio L and Lee MR Treatment of alcohol use disorder in patients with alcoholic liver disease. Am J Med 2017; 130: 124–134.
13. Becker KL and Walton-Moss B. Detecting and addressing alcohol abuse in women. Nurse Pract 2001; 26: 13–16, 19; 1623; quiz 1624-1625.
14. Dixit D, Endicott J, Burry L, et al. Management of acute alcohol withdrawal syndrome in critically ill patients. Pharmacotherapy 2016; 36: 797–822.
15. Wolf C, Curry A, Nacht J, et al. Management of alcohol withdrawal in the emergency department: current perspectives. Open Access Emerg Med 2020; 12: 53–65. https://doi.org/10.2147/oem.s235288.
16. Bostwick JM and Seaman JS. Hospitalized patients and alcohol: who is being missed? Gen Hosp Psych 2004; 26: 59–62.
17. Saiz R, Freedner N, Palfai TP, et al. The severity of unhealthy alcohol use in hospitalized medical patients. The spectrum is narrow. J Gen Intern Med 2006; 21: 381–385.
18. Gentilillo LM. Confronting the obstacles to screening and interventions for alcohol problems in trauma centers. J Trauma-Injury Infect Crit Care 2005; 59: s137–s143. discussion s146–s166.
19. Conklin TM. Addressing alcohol misuse in primary care. J Am Assoc Nurse Pract 2020; 32: 583–588.
20. Indig D, Copeland J, Conigrave KM, et al. Attitudes and beliefs of emergency department staff regarding alcohol-related presentations. Int Emerg Nurs 2009; 17: 23–30.
21. Liese BS and Reis DJ. Failing to diagnose and failing to treat an addicted client: two potentially life-threatening clinical errors. Psychotherapy (Chic) 2016; 53: 342–346.
22. Yoast RA, Filstead WJ, Willford BB, et al. Teaching about substance abuse. Virtual Mentor 2008; 10: 21–29.
23. Farrell ML. Substance use disorders: a curriculum response. OJIN: Online J Iss Nurs 2021; 21: 25.
24. Smothers BA, Yahr HT and Ruhl CE. Detection of alcohol use disorders in general hospital admissions in the United States. Arch Intern Med 2004; 164: 749–756.
25. Feliciano L. The mental health care system failed my brother and many like him. STAT News, https://www.statnews.com/2021/05/26/mental-health-care-system-failed-my-brother-millions-like-him/ (2021, accessed 12 March 2022).
26. Han B, Jones CM, Einstein EB, et al. Use of medications for alcohol use disorder in the US; results from the 2019 national survey on drug use and health. JAMA Psych 2021; 78: 922–924.
27. Sulaiman A. Stigma & Bias in Healthcare: The Obstacles, Consequences and Changes Needed. Foundation for Health Care Quality, https://www.qualityhealth.org/wpsec/2020/08/17/stigma-bias-in-healthcare-the-obstacles-consequences-and-changes-needed/ (2020, accessed 17 July 2022).
28. Nyblade L, Stockton MA, Giger K, et al. Stigma in health facilities: why it matters and how we can change it. BMC Med 2019; 17: 25.
29. Hopkins A. Studying organisational cultures and their effects on safety. Safety Sci 2006; 44: 875–889.
30. Anthony S, Catterson R, Campanella S, et al. In their own words: how fragmented care harms people with both mental illness and substance use disorder. Sacramento, CA: California Health Care Foundation, 2021.
31. Hunt DF, Bailey J, Lennox BR, et al. Enhancing psychological safety in mental health services. Int J Ment Health Syst 2021; 15: 33.
32. Disrespectful behavior in healthcare: has it improved? Please take our survey! ISMP Medication Safety Alert! Acute care edition. 2021; 26; 1-5. Horsham (PA): Institute for Safe Medication Practices. https://www.ismp.org/resources/disrespectful-behavior-healthcare-has-it-improved-please-take-our-survey (accessed 17 July 2022).
33. Amodeo M and Fassler I. Agency practices affecting social workers who treat substance-abusing clients. J Soc Work Pract Addict 2001; 1: 3–19.
34. Partnership for Health IT Patient Safety. Optimizing Health IT for Safe Integration of Behavioral Health and Primary Care. Plymouth Meeting (PA): ECR Institute, https://d84vr99712pyz.cloudfront.net/pdf/fit-partnership/partnership_whitepaper_behavioralhealth_v2.pdf (2021, accessed 12 March 2022).
35. Martin M, Snyder HR, Coffa D, et al. Time to ACT: launching an addiction care team (ACT) in an urban safety-net health system. BMJ Open Qual 2021; 1: 10. e001111.
36. Loukissa D. Under diagnosis of alcohol misuse in the older adult population. Br J Nurs 2007; 16: 1254–1258.
37. Nordqvist C, Johansson K, Lindqvist K, et al. Attitude changes among emergency department triage staff after conducting routine alcohol screening. Addict Behav 2006; 31: 191–202.
38. Coulston S. Alcohol misuse. BMJ Clin Evid 2011; 2011: 1017.
39. Barclay C, Viswanathan M, Ratner S, et al. Implementing evidence-based screening and counseling for unhealthy alcohol use with epic-based electronic health record tools. Jt Comm J Qual Patient Saf 2019; 45: 566–574.
40. Dlugacz YD, Restifo A, Scanlon KA, et al. Safety strategies to prevent suicide in multiple health care environments. Jt Comm J Qual Saf 2003; 29: 267–278.
41. Waddell AE and Grater D. Patient safety and mental health—a growing quality gap in Canada. Can J Psychiatry 2022; 67: 246–249.
42. US Preventive Services Task Force. Screening and behavioral counseling interventions to reduce unhealthy alcohol use in adolescents and adults: US preventive services task force recommendation statement. JAMA 2018; 320: 1899–1909.
43. Tyler N, Wright N, Panagioti M, et al. What does safety in mental healthcare transitions mean for service users and other stakeholder groups: an open-ended questionnaire study. Health Expect 2021; 24: 185–194.
44. Thompson W, Lande RG and Kalapatapu RK. Which factors lead to misdiagnosis of alcohol-related problems? Medscape March 23, https://www.medscape.com/answers/285913-41524/which-factors-lead-to-misdiagnosis-of-alcohol-related-problems (2020, accessed 17 July 2022).
45. Jensen CJ, Lokow HR and Heck AL. Identifying barriers to care for older adults with substance use disorders and cognitive impairments. *Alcohol Treat Q* 2012; 30: 211–223.

46. Taylor C, Jones KA and Dening T. Detecting alcohol problems in older adults: can we do better? *Int Psychogeriatr* 2014; 26: 1755–1766.

47. Blankfiel A. The position of psychiatry in alcohol dependence. *Drug Alcohol Depend* 1987; 19: 259–264.

48. Bowden B, John A, Trefan L, et al. Risk of suicide following an alcohol-related emergency hospital admission: an electronic cohort study of 2.8 million people. *PLoS One* 2018; 13: e0194772.

49. Hallgren KA, Matson TE, Oliver M, et al. Practical assessment of alcohol use disorder in routine primary care: performance of an alcohol symptom checklist *J Gen Intern Med* 2022; 37: 1885–1893.

50. Huang GC, Kriegel G, Wheaton C, et al. Implementation of diagnostic pauses in the ambulatory setting. *BMJ Qual Saf* 2018; 27: 492–497.

51. The National Confidential Inquiry into Suicide and Safety in Mental Health. Safer services: a toolkit for specialist mental health services and primary care. Manchester (UK): University of Manchester. https://documents.manchester.ac.uk/display.aspx?DocID=40697 (2021, accessed 12 March 2022).

52. Sajith SG, Fung D and Chua HC. The mental health trigger tool: development and testing of a specialized trigger tool for mental health settings. *J Patient Saf* 2021; 17: e306–e312.

53. Williams EC, Lapham GT, Shortreed SM, et al. Among patients with unhealthy alcohol use, those with HIV are less likely than those without to receive evidence-based alcohol-related care: a national VA study. *Drug Alcohol Depend* 2017; 174: 113–120.

54. Chick J. Unhelpful prescribing in alcohol use disorder: risk and averting risk. *Alcohol Alcohol* 2019; 54: 1–4.

55. Holton A, Boland F, Gallagher P, et al. Longitudinal prevalence of potentially serious alcohol-medication interactions in community-dwelling older adults: a prospective cohort study. *Eur J Clin Pharmacol* 2019; 75: 569–575.

56. Ponce Martinez C, Vakkalanka P and Ait-Daoud N. Pharmacotherapy for alcohol use disorders: physicians’ perceptions and practices. *Front Psych* 2016; 7: 182.

57. Rittenberg A, Hines AL, Alvanzo AAH, et al. Correlates of alcohol use disorder pharmacotherapy receipt in medically insured patients. *Drug Alcohol Depend* 2020; 214: 108174.

58. Andrade JDS, Rocha CE, Maciel MAV, et al. Prevalence and risk of potentially adverse drug interactions in the treatment of acute alcohol poisoning. *Brazilian J Pharm Sci* 2016; 52: 133–142.

59. Soravia LM, Wopfner A, Pfiffner L, et al. Symptoms-triggered detoxification using the alcohol-withdrawal-scale reduces risks and healthcare costs. *Alcohol Alcohol* 2018; 53: 71–77.

60. Segal M, Giuffrida P, Possanza L, et al. The critical role of health information technology in the safe integration of behavioral health and primary care to improve patient care. *J Behav Health Serv Res* 2022; 49: 221–230.

61. Terp S, Wang B, Raffetto B, et al. Individual physician penalties resulting from violation of emergency medical treatment and labor act: a review of office of the inspector general patient dumping settlements, 2002–2015. *Acad Emerg Med* 2017; 24: 442–446.

62. Committee on Quality of Health Care in America, Institute of Medicine. *Crossing the quality chasm: a new health system for the 21st century*. Washington, DC: National Academies Press, 2001.