# **Hospital Medicine**

Five Things Physicians and Patients Should Question

by

Canadian Society for Hospital Medicine

Last updated: June 2017



Don't place or leave in place a urinary catheter without reassessment.

The use of urinary catheters among hospitalized patients is common. Urinary catheter use is associated with preventable harm such as, catheter-associated urinary tract infection, sepsis, and delirium. Guidelines support routine assessment of the indications for urinary catheters and minimizing their duration of use. Appropriate indications include acute urinary obstruction, critical illness and end-of-life care. Strategies that reduce inappropriate use of urinary catheters have been shown to reduce health care associated infections.

- Don't prescribe antibiotics for asymptomatic bacteriuria (ASB) in non-pregnant patients. The inappropriate treatment of ASB represents a leading misuse of antimicrobial therapeutics. Clinicians should avoid the use of antibiotics given the lack of treatment benefits, risk of potential harm such as Clostridium difficile infections and the emergence of antimicrobial resistant organisms. The majority of hospitalized patients with ASB do not require antibiotics with the exception of pregnant women, and patients undergoing invasive urologic surgical procedures. In all other situations, antimicrobial therapy should be targeted to those who have symptoms of urinary tract infections in the presence of bacteriuria.
- Don't use benzodiazepines and other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium.

Insomnia, agitation, and delirium commonly occur among elderly inpatients, and hospital providers frequently prescribe pharmacological sleep aids or sedatives. However, studies in older adults have shown that benzodiazepines and other sedative-hypnotics significantly increase the risk of morbidity (such as falls, delirium and hip fractures) and mortality. Use of these drugs should be avoided as first line treatment for the indications of insomnia, agitation, or delirium. Instead, other non-pharmacological alternatives should be considered first.

Don't routinely obtain neuro-imaging studies (CT, MRI scans, or carotid Doppler ultrasonography) in the evaluation of simple syncope in patients with a normal neurological examination.

Syncope is common and has been defined as transient loss of consciousness, associated with inability to maintain postural tone and with immediate, spontaneous and complete recovery. Patients presenting with transient loss of consciousness due to neurological causes (such as seizures and stroke) are infrequent and must be differentiated from true syncope. While neurological disorders can occasionally result in transient loss of consciousness, the utility of neuro-imaging studies are of limited benefit in the absence of signs or symptoms concerning for neurological pathologies.

Don't routinely obtain head computed tomography (CT) scans, in hospitalized patients with delirium in the absence of risk factors.

Delirium is a common problem among hospitalized patients. In the absence of risk factors for intracranial causes of delirium (such as recent head trauma or fall, new focal neurological findings, and sudden or unexplained prolonged decreased level of consciousness), routine head CT scans are of low diagnostic yield. Guidelines suggest a step-wise approach to the management of new delirium in hospitalized patients and consideration of head CT only in patients with select risk factors.

### How the list was created

The Canadian Society for Hospital Medicine (CSHM) established its Choosing Wisely Canada (CWC) Top 5 recommendations by creating a CWC subcommittee within its Quality Improvement (QI) Committee. The subcommittee members represent a diverse group of hospitalists from across Canada, practicing in a variety of settings. A draft list of 16 recommendations was solicited from the broader CSHM membership via email and society website. Members were asked to consider relevance to hospital medicine, frequency of occurrence and potential for harm. The QI Committee vetted each recommendation and conducted a literature review to determine the strength of the supporting evidence. Recommendations lacking in evidence were removed from the list. All CSHM members were invited to rank the remaining 12 items using an anonymous electronic web-based survey tool. The top 9 recommendations with the highest scores were selected for a second round of voting in which the scores from the first round of voting were revealed to participants. The top 5 recommendations with the highest degree of agreement were selected and submitted to the Board of Directors for approval as the final list.

#### Sources

0

Colli J, et al. National trends in hospitalization from indwelling urinary catheter complications, 2001-2010. Int Urol Nephrol. 2014 Feb;46(2):303-8. PMID: 23934618.

Hooton TM, et al. Diagnosis, prevention, and treatment of catheter-associated urinary tract infection in adults: 2009 International Clinical Practice Guidelines from the Infectious Diseases Society of America. Clin Infect Dis. 2010 Mar 1;50(5):625-63. PMID: 20175247.

Jain P, et al. Overuse of the indwelling urinary tract catheter in hospitalized medical patients. Arch Intern Med. 1995 Jul 10;155(13):1425-9. PMID: 7794092. Landrigan CP, et al. Temporal trends in rates of patient harm resulting from medical care. N Engl J Med. 2010 Nov 25;363(22):2124-34. PMID: 21105794. Lo E, et al. Strategies to prevent catheter-associated urinary tract infections in acute care hospitals: 2014 update. Infect Control Hosp Epidemiol. 2014 May;35(5):464-79. PMID: 24709715.

Miller BL, et al. A multimodal intervention to reduce urinary catheter use and associated infection at a Veterans Affairs Medical Center. Infect Control Hosp Epidemiol. 2013 Jun;34(6):631-3. PMID: 23651896.

O'Mahony R, et al. Synopsis of the National Institute for Health and Clinical Excellence guideline for prevention of delirium. Ann Intern Med. 2011 Jun 7;154(11):746-51. PMID: 21646557.

Ramanathan R, et al. Urinary tract infections in surgical patients. Surg Clin North Am. 2014 Dec;94(6):1351-68. PMID: 25440128.

Qupta K, et al. International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women: A 2010 update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases. Clin Infect Dis. 2011 Mar 1;52(5):e103-20. PMID: 21292654.

Lin E, et al. Overtreatment of enterococcal bacteriuria. Arch Intern Med. 2012 Jan 9;172(1):33-8. PMID: 22232145.

Nicolle LE, et al. Infectious Diseases Society of America guidelines for the diagnosis and treatment of asymptomatic bacteriuria in adults. Clin Infect Dis. 2005 Mar 1;40(5):643-54. PMID: 15714408.

Nicolle LE, et al. Prospective randomized comparison of therapy and no therapy for asymptomatic bacteriuria in institutionalized elderly women. Am J Med. 1987 Jul;83(1):27-33. PMID: 3300325.

Rotjanapan P, et al. Potentially inappropriate treatment of urinary tract infections in two Rhode Island nursing homes. Arch Intern Med. 2011 Mar 14;171(5):438-43. PMID: 21403040.

Trautner BW. Asymptomatic bacteriuria: when the treatment is worse than the disease. Nat Rev Urol. 2011 Dec 6;9(2):85-93. PMID: 22143416.

Allain H, et al. Postural instability and consequent falls and hip fractures associated with use of hypnotics in the elderly: a comparative review. Drugs Aging. 2005;22(9):749-65. PMID: 16156679.

American Geriatrics Society 2012 Beers Criteria Update Expert Panel. American Geriatrics Society updated Beers Criteria for potentially inappropriate medication use in older adults. J Am Geriatr Soc. 2012 Apr;60(4):616-31. PMID: 22376048.

Finkle WD, et al. Risk of fractures requiring hospitalization after an initial prescription for zolpidem, alprazolam, lorazepam, or diazepam in older adults. J Am Geriatr Soc. 2011 Oct;59(10):1883-90. PMID: 22091502.

Gillis CM, et al. Inpatient pharmacological sleep aid utilization is common at a tertiary medical center. J Hosp Med. 2014 Oct;9(10):652-7. PMID: 25130534.

Alboni P, et al. Diagnostic value of history in patients with syncope with or without heart disease. J Am Coll Cardiol. 2001 Jun 1;37(7):1921-8. PMID: 11401133

Grossman SA, et al. The yield of head CT in syncope: a pilot study. Intern Emerg Med. 2007 Mar;2(1):46-9. PMID: 17551685.

Mendu ML, et al. Yield of diagnostic tests in evaluating syncopal episodes in older patients. Arch Intern Med. 2009 Jul 27;169(14):1299-305. PMID:

Schnipper JL, et al. Diagnostic yield and utility of neurovascular ultrasonography in the evaluation of patients with syncope. Mayo Clin Proc. 2005 Apr;80(4):480-8. PMID: 15819284.

Sheldon RS, et al. Standardized approaches to the investigation of syncope: Canadian Cardiovascular Society position paper. Can J Cardiol. 2011 Mar-Apr;27(2):246-53. PMID: 21459273.

Strickberger SA, et al. AHA/ACCF Scientific Statement on the evaluation of syncope: from the American Heart Association Councils on Clinical Cardiology, Cardiovascular Nursing, Cardiovascular Disease in the Young, and Stroke, and the Quality of Care and Outcomes Research Interdisciplinary Working Group; and the American College of Cardiology Foundation: in collaboration with the Heart Rhythm Society: endorsed by the American Autonomic Society. Circulation. 2006 Jan 17;113(2):316-27. PMID: 16418451.

Sun BC, et al. Priorities for emergency department syncope research. Ann Emerg Med. 2014 Dec;64(6):649-55.e2. PMID: 24882667.

Task Force for the Diagnosis and Management of Syncope, et al. Guidelines for the diagnosis and management of syncope (version 2009). Eur Heart J. 2009 Nov;30(21):2631-71. PMID: 19713422.



British Geriatrics Society. <u>Guidelines for the prevention</u>, <u>diagnosis and management of delirium in older people in hospital</u> [Internet]. 2006 Jan [cited 2015 Apr 9].

Hardy JE, et al. Computerized tomography of the brain for elderly patients presenting to the emergency department with acute confusion. Emerg Med Australas. 2008 Oct;20(5):420-4. PMID: 18973639.

Hirano LA, et al. Clinical yield of computed tomography brain scans in older general medical patients. J Am Geriatr Soc. 2006 Apr;54(4):587-92. PMID: 16686867.

Lai MM, et al. Intracranial cause of delirium: computed tomography yield and predictive factors. Intern Med J. 2012 Apr;42(4):422-7. PMID: 21118407. Michaud L, et al. Delirium: guidelines for general hospitals. J Psychosom Res. 2007 Mar;62(3):371-83. PMID: 17324689.

Pompei P, et al. Delirium in hospitalized older persons: outcomes and predictors. J Am Geriatr Soc. 1994 Aug;42(8):809-15. PMID: 8046190. Theisen-Toupal J, et al. Diagnostic yield of head computed tomography for the hospitalized medical patient with delirium. J Hosp Med. 2014 Aug;9(8):497-501. PMID: 24733711.

Vijayakrishnan R, et al. Utility of Head CT Scan for Acute Inpatient Delirium. Hosp Top. 2015 Jan-Mar;93(1):9-12. PMID: 25839350.

## **About the Canadian Society of Hospital Medicine**

CSHM was founded in 2001 as the Canadian chapter of the US based Society of Hospital Medicine. The CSHM is committed to promoting the highest quality of care for all hospitalized patients. The CSHM supports Canadian hospitalists promoting excellence in the practice of hospital medicine through education, advocacy and research.



# **About Choosing Wisely Canada**

Choosing Wisely Canada is a campaign to help physicians and patients engage in conversations about unnecessary tests, treatments and procedures, and to help physicians and patients make smart and effective choices to ensure high-quality care.

🖶 ChoosingWiselyCanada.org | 🔀 info@ChoosingWiselyCanada.org | 💆 @ChooseWiselyCA | f /ChoosingWiselyCanada