Appendix 2. Observation guide: surgical time-outs

Date / time: _____

Operating room / service: _____

1. Did time-out occur? ☐ Y ☐ N
2. Who called the time-out? _____
3. What were the elements of the discussion at the surgical time-out?
   - a. Presence of the correct patient ☐ Y ☐ N
   - b. Marking of the correct site and side ☐ Y ☐ N NA, reason: _____
   - c. Correct patient position ☐ Y ☐ N
   - d. Procedure to be performed ☐ Y ☐ N
   - e. Availability of correct implants / equipment ☐ Y ☐ N
   - f. Correctly labelled radiographs / diagnostics ☐ Y ☐ N
   - g. Antibiotic prophylaxis (if applicable) ☐ Y ☐ N
   - h. Medical history / comorbid conditions / allergies ☐ Y ☐ N
   - i. State that at any time during the procedure team members should raise any relevant concerns they might have ☐ Y ☐ N

Appendix 3. Personal interview guide

Discipline: _____

1. Do you feel the Sick Kids OR is safe? Why or why not?
2. Do you feel leadership in the OR supports safety? Why or why not?
3. Do you feel the OR staff support safety? Why or why not?
4. Do you feel the 07:35 huddle has improved safety? If yes, how? If not, why?
5. Do you feel surgical time-out has improved safety? If yes, how? If not, why?
6. How could the OR be made safer?

OR = operating room.

CORRESPONDENCE • CORRESPONDANCE

CRITERIA FOR A DIAGNOSIS OF ABDOMINAL COMPARTMENT SYNDROME

We read with interest the recent case note by Vikrama and colleagues[1] describing the percutaneous management of a patient with purported primary abdominal compartment syndrome (ACS). We congratulate the authors on their successful application of a less invasive technique for the management of this potentially life-threatening injury. However, the Executive Committee of the World Society of the Abdominal Compartment Syndrome (WSACS) would like to clarify several incorrect and potentially misleading statements in this case note.

The author's definition of abdominal compartment syndrome (ACS) is incorrect. According to the International Conference of Experts on Intra-Abdominal Hypertension and Abdominal Compartment Syndrome, intra-abdominal hypertension (IAH) is defined as the sustained or repeated pathologic elevation of intra-abdominal pressure (IAP) greater than or equal to 12 mm Hg.[2,3] Abdominal compartment syndrome is defined as a sustained IAP greater than 20 mm Hg that is associated with the development of new organ dysfunction or failure. The authors' description of their patient is consistent with IAH (IAP 26 mm Hg), but they fail to define the new organ dysfunction or failure that would qualify their patient for a diagnosis of ACS. In addition, such a diagnosis should not be based upon a single IAP measurement but rather a sustained increase as IAP can be transiently elevated due to coughing, agitation or ventilator dyssynchrony. Further, whereas ACS is classically considered a disease of the traumatically injured patient, as illustrated by the authors, IAH / ACS may also be encountered in medical and pediatric patient populations. The presence of elevated IAP among critically ill patients is grossly underappreciated and represents a clinically important cause of potentially preventable morbidity and mortality.[3]

The authors state that the diagnosis of IAH / ACS is "difficult" and imply that radiologic testing should be used to identify the presence of elevated IAP. These statements are

also inaccurate; IAH / ACS can be easily and accurately diagnosed with the use of inexpensive bedside IAP measurements such as those used by the authors. The medical literature is replete with studies demonstrating the efficacy and diagnostic accuracy of IAP measurements.[3–5] Such measurements can be used to diagnose IAH / ACS and to direct ongoing therapeutic interventions. Radiologic tests are unnecessary, expensive and time-consuming, and they have poor diagnostic sensitivity and specificity for IAH / ACS. Their routine application as a diagnostic tool only serves to delay and confuse the appropriate management of patients with IAH / ACS.

The WSACS has described a graded approach to the diagnosis and management of IAH / ACS (www.wsacs.org) that can be used to avoid the need for surgical decompression in many patients.[2,3] In this algorithm, percutaneous drainage is considered as a potential therapeutic option before proceeding with surgical decompression. If percutaneous drainage is unsuccessful in reducing IAP and restoring adequate visceral perfusion in the setting of ACS, surgical decompression should be immediately performed. The clinical situation in which "surgical decompression is not feasible" and percutaneous treatment would be an effective rescue therapy, as suggested by the authors, is exceedingly rare and unlikely.

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Competing interests: None declared.

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THE AUTHORS REPLY

We thank Dr. Cheatham and colleagues for their interest in our article.[1] We regret the typographical error in the definition of abdominal compartment syndrome (ACS). This should have been "greater than 20 mm Hg." The patient had sustained raised intra-abdominal pressure. This was recorded more than once. Diagnosis was not based on a single measurement of intra-abdominal pressure. He went into respiratory failure, a new organ dysfunction that supports the diagnosis of ACS in our patient. We have not implied that radiological testing should be done to reach a diagnosis; however, with such imaging the large loculated fluid collections and oedematous bowel loops can be better differentiated, helping to plan the appropriate intervention.

Although the authors of the letter state that "the scenario of surgical decompression not being feasible and percutaneous treatment being an effective rescue therapy is exceedingly rare and unlikely," there is a case report[2] of a patient with ACS who was initially unfit for surgery and was treated with percutaneous drainage. We document in our case report[1] another instance where percutaneous drainage helped in the recovery of a patient with ACS who was unfit for surgery.

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