



Pennsylvania Patient Safety Reporting System

Patient Safety Advisory

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Expecting the Unexpected: Ambulatory Surgical Facilities and Unanticipated Care

The substantial increase in the number of procedures performed in ambulatory surgical facilities (ASFs)¹ has made it important for clinical staff in ASFs to “expect the unexpected” and prepare for the need to provide unanticipated care to their patients. Of the 1,960 total reports submitted to PA-PSRS from ASFs, approximately 686 (35%) have involved the need to provide unanticipated patient care or to transfer the patient to another provider. The majority of these reports describe procedure cancellations, transfers for emergent intraoperative care, or emergent postoperative follow-up care.

Is there a way to reduce the incidence of cancellations or transfers? The necessity to provide unanticipated care while at the surgical center places the patient, other patients, and the ASF staff at risk. A review of reports to PA-PSRS and the clinical literature suggests the following opportunities for risk analysis and improvement:

- Patient selection, with a focus on procedure, patient medical condition, and location.
- Ability to provide prompt and competent unanticipated care.
- Timely, efficient, and safe transfers to hospitals, when necessary.

Reports to PA-PSRS

A random sample of 100 ASF reports filed in PA-PSRS were reviewed, with 35 reports (35%) related to unanticipated care. Thirty-one percent (11 cases) of the 35 cases involved preoperative procedure cancellations, nearly all of which were secondary to cardiac-related symptoms. In each case, the patient was transferred or referred to another facility for follow-up care. Most patients were transferred by ambulance to the emergency department of a local hospital. The following report narrative is characteristic of this category:

Cardiac monitoring preprocedure showed sinus bradycardia. Stat EKG performed. Sinus bradycardia with first-degree block and frequent PVCs in a pattern of bigeminy. Transported to ED.

Fourteen percent (5 cases) of the 35 “unanticipated care” reports were categorized as intraoperative

changes in the patient’s condition that necessitated aborting the procedure. Reported complications varied, but perforations were the most frequently reported cause for urgent transfer to the hospital, followed by uncontrolled bleeding. Examples include:

During colonoscopy, the colon was perforated. Patient was given Cipro IV and became hypotensive. Anesthesiologist accompanied patient in ambulance and then to OR.

Following removal of hardware, bleeding continued. Dorsalis pedis artery was lacerated. Vascular surgeon called. Artery repaired. Patient transferred to hospital.

Reasons for postoperative transfers are diverse. Post-op transfers account for 19 (54%) of the 35 cases. Of those 19 cases, 16 (84%) required direct hospital transfers for services ranging from immediate surgical intervention to observation, and three cases (16%) required transfers to emergency departments for observation or follow-up care. The following is an example of a typical report in this category:

Post procedure patient received in PACU in respiratory distress, pulse ox 85-90% on room air. O₂ supplemented with non-rebreather mask. Anesthesia and surgeon agreed to ACLS transfer via local medic unit.

Patient Screening for Risk of Transfer or Unanticipated Hospital Admission

Three studies support the importance of appropriate patient selection for services at an ASF.²⁻⁴ An analysis of Medicare claims found that the strongest predictor of post-procedure admission was hospitalization within the previous six months, with “a 2-fold in-

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creased risk associated with multiple prior inpatient hospital admissions.”³ The oldest age cohort (85 years and older) also had a nearly 2-fold increased risk relative to the 65- to 69-year-old cohort.³

A study of New York State surgery data searched for predictors of hospitalization or death in 783,483 procedures, 40,000 of which were done in ambulatory settings. The researchers identified the following factors for predicting hospital admission or death following outpatient surgery and concluded that patients with four or more of these risk factors would fare best if treated in a center connected to a hospital:⁴

- Patient age greater than 85 years.
- Peripheral vascular disease.
- Operating room time greater than one hour.
- Malignancy.
- Positive HIV status.
- Heart disease.
- A requirement for general anesthesia.

All ambulatory surgical patients require some level of care and support postoperatively. This need may be substantial for medically complex patients. Adequate support at home is needed to provide for treatment and monitoring related to both the surgical intervention and their preoperative state. Therefore, attention to preoperative medical needs, the expected postoperative care, and the level of home support is taken into consideration when deciding on a location for surgery. Additional criteria mentioned in the literature for consideration when screening patients for appropriateness of surgery location are baseline medications, general mental health,⁵ functional limitations, and social support.⁶

Examining the patient’s history of recent hospitalization and reviewing identified risk factors may provide insight into the potential for transfer or admission postprocedure as well as the likelihood of case cancellation. The routine preoperative assessment completed upon patient admission to the ASF frequently captures critical information necessary to decide whether to abort the case. Changes in the patient’s condition, complex medical histories, noncompliance with preoperative instructions, or other unexpected issues may necessitate a case cancellation, as the following case indicates:

Upon pre-op assessment for a TURP [transurethral resection of the prostate] scheduled under general anesthesia, it was detected the 80-year-old patient had a history of severe COPD [chronic obstructive pulmonary disease], recent cold

and cough, and SpO₂ 89% on room air. Patient stated that after his scope procedure last month, he had to be admitted.

Canceling this case probably saved the patient from an emergent transfer and hospitalization. Though everyone wants to avoid a cancellation, it is frequently better to interrupt the surgical schedule and inconvenience the patient than to risk an emergent situation.

Emergency Preparedness

Of the 35 reports reviewed, 69% involved patients who required intraoperative or postoperative hospital-level care, with transfers for direct admission, immediate surgical intervention, or emergency department care in which patient observation or follow-up services were provided. Both regulatory and accrediting bodies address the issue of ASF preparation for emergencies.

Emergency preparedness procedures may include designating which practitioner from the ASF will escort the patient during transfer, determining when to activate the 911 system, and deciding where the patient will go.⁷ The following case demonstrates the necessity for activation of an emergency medical system and determination of accompaniment:

Following a cervical epidural injection, the patient became unresponsive to verbal and tactile stimulation. Patient had a pulse and blood pressure but was not breathing. Manual respirations applied via ambu bag. Physician intubated patient, deemed patient stable for transfer via emergency services (911). Physician accompanied patient.

As long as a patient is on-site, staff certified in ACLS (and/or PALS, depending on patient age) are available.⁷ In addition, Pennsylvania regulations require an anesthetist to remain until the last patient is discharged when general anesthesia, regional anesthesia, or sedation is administered.⁸

A written plan or policy typically addresses the issue of readiness for the unexpected when patients are in the facility. Staff educated in activation of the emergency plan will perform with confidence and efficiency in responding to changes in a patient’s condition. Review of this plan, including individual responsibilities according to the various roles delineated in the plan, is important to ensure readiness for urgent or emergent situations. Routine drills may be added to the review process to further ensure that emergency readiness is maintained.

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Readiness for transferring a patient is required by the Pennsylvania Department of Health rules and regulations, as follows:

- “An ASF shall be prepared to initiate immediate on-site resuscitation or other appropriate response to an emergency which may be associated with procedures performed there.
- “The ASF shall have an effective procedure for the immediate transfer to a hospital of patients requiring emergency medical care beyond the capabilities of the ASF.
- “The ASF shall have a written transfer agreement with a hospital which has emergency and surgical services available or physicians performing surgery in the ASF shall have admitting privileges at a hospital in close proximity to the ASF, to which patients may be transferred.
- “There shall be a written agreement in effect with an ambulance service staffed by certified EMT personnel, for the safe transfer of a patient to a hospital in an emergency situation, or as the need arises.”⁸

In addition to the state regulations, the American College of Surgeons *Guidelines for Optimal Ambulatory Surgical Care and Office-based Surgery* and federal regulations describe the need for emergency equipment and transfer agreements.^{9,10} The federal regulations, similar to the state regulations, require that surgeons performing procedures at an ASF have privileges at the receiving hospital or that the facility have transfer agreements with the hospital(s), if warranted.¹⁰

Since 1999, the Association of periOperative Registered Nurses (AORN) has annually updated or revised its comprehensive publication *Standards and Recommended Practices for Ambulatory Surgery*, which provides detailed information specific to any ambulatory surgical setting. This text includes AORN practice standards specific to ambulatory settings, providing pre-, post-, and intraoperative nursing care considerations, as well as guidance related to issues specific to the ambulatory setting.⁷

Conclusions

As the shift to outpatient surgery is fueled by technological advances, the current proportion of all surgical procedures that occur on an outpatient basis (60%) is likely to increase.¹¹ This expected industry growth increases the need for vigilance in early identification of patients at risk of intra- or postoperative complica-

tions. As resources are extended to meet the projected rising demand, anticipate scrutiny of case cancellations and tightly managed transfers. Expect focused attention on maintaining quality care, helping to ensure that ASFs provide competent and consistent surgical care of the highest standard, with appreciation for the strain that unanticipated care places on the patient and caregiver, the staff, and the schedule, not to mention the inherent risk to all involved. Readiness for unexpected patient transfers and attention to patient selection provides for optimal patient outcomes, staff satisfaction, and best use of resources in delivering high-quality care.

Notes

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