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RECOMMENDATIONS

Risk management in ambulatory and short-stay gastrointestinal surgery☆

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Introduction

The development of ambulatory surgery is a France national priority. The most recent statistics (2014) revealed that the overall rate of ambulatory surgery (all specialties grouped together) was 44.9% in France [1]. The framework and indications for ambulatory surgery have been extensively debated in guidelines of Learned Societies [1,2], a report from the High Authority of Health (*Haute Autorité de santé* [HAS]) and National Agency for Support of Performance in Health Care and Medico-social Establishments (*Agence nationale d'appui à la performance des établissements de santé et médico-sociaux*) [3]. These recommendations provide details concerning the indications and organizational characteristics for ambulatory surgery but do not deal with related risk management.

The goal of the 2015 National Meeting of the French Federation of Visceral and Gastrointestinal Surgery (*Fédération de chirurgie viscérale et digestive* [FCVD]) was to analyze the risks related to ambulatory surgery and to establish specific management guidelines based on the National Multisource Feedback Registry (used for accreditation purposes, also called REX) and the literature.

These recommendations are the combined results of presentations made during their one-day national meeting, discussion with participants, and Jury deliberations within the FCVD.

☆ Guidelines of the French Federation of Visceral and Gastrointestinal surgery (*Fédération de chirurgie viscérale et digestive* — FCVD), and the Francophone working group for enhanced recovery after surgery (*Groupe francophone de réhabilitation améliorée après chirurgie* — GRACE).

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Of note, parallel to the development of ambulatory surgery, we have seen the emergence of a concept called ''enhanced recovery after surgery'' (also called in the past, fast-track surgery or rapid or early recovery) that addresses various procedures that are more complex than those performed in ambulatory surgery (so-called major gastrointestinal surgery). The latter involves a complete set of pre-, intra- and postoperative measures that aim to minimize the surgical after effects. One of the advantages of enhanced recovery is that hospital stay can be short, thanks to a specific clinical pathway and multimodality management [4]. The management plan recommended by GRACE (*Groupe francophone de réhabilitation améliorée après chirurgie*), or the Francophone working group for enhanced recovery after surgery, is therefore similar to that for ambulatory surgery. The FCVD decided to appraise the risk management related to these two types of care strategies and to take this beyond the theme addressed during the national meeting. On the other hand, the FCVD considers that ambulatory surgery (without hospital stay), surgery with < 24 h hospital stay, and surgery within enhanced recovery programs are all based on the same principles. Table 1 summarizes these definitions.

The advantages expected to be reaped from short hospital stay depend closely on establishment of rigorous clinical pathways, requiring team work from all participants as well as the active participation of the patient who is the main recipient of the healthcare process. This results in improved quality of healthcare and surgical outcome [3,5]. But these advantages are closely linked with risk management related to this approach and the necessity to set up systemic procedures for the management of these risks.

The risks related to short hospital stay (ambulatory and enhanced recovery programs) should not be superior to those of conventional hospital stay. Table 2 summarizes the respective risks linked to these two approaches.

Analysis of the REX database for ambulatory surgery

Between March 2009 and March 2014, the REX database encompassed 285 severe adverse events (SAE) associated with healthcare procedures or ''adverse patient occurrences'' (APOs): 115 were preoperative (40%), 40 were intra-operative (15%), and 130 were postoperative (46%).

Preoperative APOs

Preoperative APOs were related to cancellation/re-scheduling (24%), skin prep (21%) or wrong (site) side errors (15%), anticoagulation problems or failure to fast. These APOs resulted in re-scheduling or complete hospitalization in 56% of cases.

Intra-operative APOs

Intra-operative APOs were essentially wrong operative site (30%), technical (27%) or anaesthetic (20%) incidents. Acknowledged wrong site (side) errors ($n = 8$) were observed essentially in abdominal wall or superficial surgery and resulted either in traditional hospitalization or unplanned re-operation.

Postoperative APOs

Postoperative APOs consisted of bleeding (19%), pain, lightheadedness, falls, urinary retention, or sometimes peritonitis. These postoperative APOs led to re-hospitalization for nearly half of the patients (48%) and traditional hospitalization for 37%.

In all, 45 patients (16%) required an unintended re-operation, essentially for bleeding (40%) or sepsis (including peritonitis) (47%).

Risk management related to ambulatory and short-stay surgery

It is recommended that surgical units engaged in this surgical approach should develop safety policies and systems of practice analysis (morbidity and mortality conferences, accreditation programs, 360° or multisource feedback committees...), as well as warning systems.

Risk management in this context should follow the same plan: preoperative, intra-operative, postoperative, in-hospital, and post-discharge phases. Organizational measures include respecting surgical indications according to the current recommendations, use of a shared electronic medical record and adherence to a clinical pathway specific for each disease, active patient participation, organization of discharge modalities according to formally established and strictly followed criteria as well as a rigorous post-discharge surveillance program.

Table 1 English and French definitions of various types of short hospital stay.

English terminology	French terms	Definition
Ambulatory surgery	*Chirurgie ambulatoire*	Hospital stay < 12 h, the same day
Extended recovery	*Séjour d'une nuit*	Hospital stay < 23 h, with one night in hospital
Enhanced recovery	*Réhabilitation améliorée*	Short hospitalization (2—8 days — less than traditional mean hospital stay, according to procedure)

Table 2 Risks specific to short-stay hospitalization.

Risks	Ambulatory or less than 24 h	Enhanced recovery
Cancellation	√	√
Failure requiring conventional hospitalization	√	
Unplanned medical consultation	√	√
Unplanned re-hospitalization	√	√
Delayed recognition of postoperative complication (failure to rescue)	√	√