

SWISS RECOMMENDATIONS FOR PATIENTS AT RISK FOR PULMONARY ASPIRATION

Every anaesthesia department should develop and implement a mandatory standard operating procedure (SOP) for the anaesthetic management of patients at risk of pulmonary aspiration.

PREPARATION

1. Gastric ultrasound



Preoperative gastric ultrasound is recommended in patients with uncertain fasting status, before urgent or emergency surgery, in patients receiving GLP-1 receptor agonists or presenting with symptoms of gastroparesis. If gastric sonography confirms an empty stomach, Rapid Sequence Induction (RSI) may be omitted after individualized risk-benefit assessment.

2. Patient positioning



Patients should be positioned in a head-up position, using either a wedge/ramping pillow or the reverse Trendelenburg position.

3. Preparation



Preoxygenation with 100% oxygen (FiO_2 1.0), targeting an end-tidal oxygen concentration (EtO_2) $\geq 80\%$, is mandatory. A functioning suction device equipped with a wide-lumen suction catheter and an endotracheal tube with a stylet should be prepared prior to induction. Gastric tubes should remain in situ and be aspirated immediately before induction of anaesthesia.

4. Use of checklists



Before each RSI, a team leader should be designated and clearly identified. A standardised checklist-based team briefing should include verification of patient identity and team members, patient-specific risk factors, patient monitoring, anaesthesia workstation, equipment, medications, and intravenous access.

Note: Airway management can be performed by anaesthesia residents or nurse anaesthetists under direct supervision.

MANAGEMENT

1. Rapid Sequence Induction (RSI)



Neuromuscular monitoring prior to tracheal intubation is recommended. Correct endotracheal tube placement must be confirmed by continuous end-tidal carbon dioxide (EtCO_2) monitoring. The use of neuromuscular blocking agents with delayed onset (e.g., atracurium) and the application of cricoid pressure should be avoided.

2. Videolaryngoscopy



Must be immediately available at all times.

3. Modified / Controlled RSI (mRSI)



In patients at increased risk of hypoxaemia or haemodynamic instability, modified RSI (mRSI) offers an alternative to conventional RSI. The essential components remain unchanged, including head-up positioning, preparation of equipment, medications, and personnel, and appropriate dosing of neuromuscular blocking agents. In addition, positive-pressure ventilation with airway pressures not exceeding 15 mbar (15 cmH_2O) may be applied.

MANAGEMENT OF REGURGITATION OR PULMONARY ASPIRATION

1. Management



Immediate endotracheal intubation is recommended. Alternatively, the patient may be placed in a head-down position prior to tracheal intubation. Bronchoscopy is recommended following clinically significant aspiration. Post-procedural extubation may be performed in the absence of significant gas exchange impairment. Routine administration of antibiotics or corticosteroids is not recommended.

2. Post-event monitoring



Following regurgitation or pulmonary aspiration, asymptomatic patients may be transferred to a regular ward after 3 hours of clinically uneventful observation. Routine admission to an intensive care unit is not required.

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SSAPM
Swiss Society for Anaesthesiology
and Perioperative Medicine

References: 1. Baettig SJ, Filipovic MG, Giroud M, Bomberg H, Hofer CK, Eichenberger U, Ganter MT. *SAFE anaesthesia for patients at risk of pulmonary aspiration: A nationwide survey.* Eur J Anaesthesiol Intensive Care. 2025 Mar 10;4 (2):e0070. 2. Baettig SJ, Filipovic MG, Bomberg H, Hofer CK, Ganter MT. *SSAPM practical recommendations for the perioperative management of pulmonary aspiration: a Swiss consensus.* BMC Anesthesiol., 2026 Apr 20; 26 (1): 339.