

Summary

We asked the Patient Safety Group (PSG) of The Royal College of Surgeons of Edinburgh (RCSEd) to draw up their top 10 priorities for patient safety in surgery. This resource is for surgeons, anaesthetists and other healthcare professionals who work in surgery and contains links to useful tools and further reading.

See also:

- [Top 10 tips for surgical safety: 'Think Safety, think SEIPS'](#)
- [Top 10 patient safety tips for surgical trainees](#)

Content

1. Foster a culture of safety through design

- Establish a **psychologically safe environment**, through design, where staff feel empowered to speak up without fear of blame.
- **Promote a Just Culture**, balancing personal accountability with systems-based learning from adverse events and near misses.
- Actively encourage multidisciplinary teamwork and peer support, with support from senior leadership, to enhance safety and well-being.

Other useful RCSEd resources:

- [**Anti bullying and undermining campaign**](#)
- [**Sexual misconduct in surgery – Lets remove it campaign**](#)
- [**Addressing conflict in surgical teams workshop**](#)

2. Implement team-based quality and safety reviews

- Use **team-based quality reviews (TBQRs)** and structured case analysis to learn from everyday work, incidents and near misses.
- Translate findings into sustainable **improvement initiatives** that enhance both patient outcomes and staff experience.
- Foster a culture of collective learning, ensuring safety insights lead to actionable change.

Other useful RCSEd resources:

- [**Making sense of mistakes workshop**](#)

3. Apply Human Factors principles and systems thinking principles in surgical and clinical practice

- Design resilient systems that mitigate work and cognitive overload and enhance performance reliability. Use TBQR principles to support this.
- Standardise workflows, optimise usability of IT systems and medical devices, and integrate cognitive aids (e.g. **WHO Safe Surgery Checklists**, prompts).
- Ensure governance processes support safe, efficient and user-friendly surgical environments.

Other useful RCSEd resources:

- **Systems safety on surgical ward rounds**
- **Improving the working environment for safe surgical care**
- **Improving safety out of hours**

4. Enhance communication & handover processes

- Implement structured communication tools such as **SBAR** (Situation, Background, Assessment, Recommendation) to improve clarity and effective decision-making.
- Optimise handover processes with digital tools, checklists and standardised documentation.
- Reinforce closed-loop communication, ensuring critical information is confirmed and acted upon.

Other useful RCSEd resources:

- **Consultation Skills that matter for Surgeon (COSMOS)**

5. Strengthen leadership & accountability in patient safety

- Senior leaders must visibly support safety initiatives and proactively engage frontline staff in decision-making.
- Embed structured mechanisms for **raising concerns**, including TBQR, safety huddles and escalation pathways.
- Ensure staff have access to **training**, resources and protected time for safety and quality improvement work.

6. Minimise medication errors in surgery

- Implement electronic prescribing and technology assisted medication administration to mitigate errors.
- Enforce double-check procedures for high-risk medications and standardised drug labelling.
- Improve intra and peri-operative medication safety with clear labelling, **colour-coded syringes** and real-time verification.

7. Improve early recognition & response to deterioration

- Appropriate regular **training of teams** on processes and pathways supported by good design of staff rota ensuring adequate staffing levels.
- Implement **early warning scores** and establish rapid response pathways for **deteriorating patients**.
- Standardise post-operative surveillance strategies, ensuring timely escalation and intervention.

Other useful RCSEd resources:

- **Recognition and prevention of deterioration and injury (RAPID) course for training in recognising critically ill patients**

8. Engage patients & families as safety partners

- Encourage shared **decision-making to align treatment plans** with patient expectations and values.
- Provide clear communication on risks, benefits and post-operative care, using tools like patient safety checklists and **focus on informed consent processes**.
- **Actively involve patients and families** in safety and quality initiatives and hospital discharge planning.

Other useful RCSEd resources:

- **Patient/carers/families resources and information**
- **Informed consent courses (ICoNS)**

9. Standardise, simplify & optimise surgical processes

- Reduce unnecessary complexity in clinical workflows, making processes intuitive, efficient and reliable.
- Co-design **standard operating procedures**, policies and pathways with frontline teams to minimise variation.
- Implement automation and digital solutions where feasible to streamline repetitive tasks.

Other useful RCSEd resources:

- **NOTSS (Non Operative Technical Skills for Surgery) courses for surgeons**
- **DenTS courses for dentists**

10. Promote continuous learning & simulation-based training

- Conduct regular **simulation training** for critical scenarios (e.g. sepsis, airway emergencies, human factors).
- Use insights from TBQR and incident reviews to target training needs and refine clinical practice.
- Ensure ongoing **professional development** by providing staff with time, resources, incentives and institutional support for learning.

Other useful RCSEd resources:

- **Education pages**
- **Edinburgh Surgery OnLine MSc in Patient Safety and Clinical Human Factors**

Learn more at **[www.RCSEd.ac.uk /PSG](http://www.RCSEd.ac.uk/PSG)**