

## The ASOS Surgical Risk Calculator Score card

The ASOS Surgical Risk Score is used to identify patients requiring ‘increased postoperative surveillance’

How to calculate the ASOS Surgical Risk Score:

1. Calculate score before surgery using the table below
2. ASOS Surgical Risk Score = Age (points) + ASA (points) + Surgery timing (points) + Surgery severity (points) + Indication for surgery (points) + Surgery (points)
3. High-risk patients have ASOS Surgical Risk Score  $\geq 10$  points
4. A high-risk patient has an ASOS Surgical Risk Score  $\geq 10$  points
5. If  $\geq 10$  points, then organize ‘increased postoperative surveillance’ after surgery

Age	Points
18- 29	0
30-69	+1
$\geq 70$	+3
<b>ASA</b>	
ASA 1	0
ASA 2	+2
ASA 3	+5
ASA 4 and more	+8
<b>Surgery timing</b>	
Elective surgery	0
Urgent surgery	+3
Emergent surgery	+4
<b>Surgery severity</b>	
Minor	0
Intermediate	+2
Major	+4
<b>Indication for surgery</b>	
Non-communicable disease	0
Caesarean section	-2
Trauma	+1
Infection	+2
<b>Surgery type</b>	
Gynaecology/ obstetrics	-1
Plastics and breast	+1
Urology	+2
Ear, nose and throat, gastro-intestinal, hepato-biliary, cardiothoracic, vascular	+3
Neurosurgery	+4
All other types of surgery	0

## **Definitions:**

### *American Society of Anesthesiologists (ASA)*

- I A normal healthy patient
- II A patient with mild systemic disease which does not limit physical activity
- III A patient with severe systemic disease which limits physical activity
- IV A patient with severe systemic disease that is a constant threat to life
- V A patient who is not expected to survive for 24 hours without the operation.

### *Surgery timing*

Elective: Not immediately life-saving; planned within months or weeks.

Urgent: Planned surgery within hours or days of the decision to operate.

Emergency: As soon as possible; no delay to plan care; ideally within 24 hours.

### *Surgery severity*

Surgery severity is determined by the combination of surgical complexity and amount of tissue injury.

*Minor:* Surgery would include procedures lasting less than 30 minutes performed in a dedicated operating room which would often involve extremities or body surface or brief diagnostic and therapeutic procedures eg arthroscopy without intervention, removal of small cutaneous tumour, diagnostic proctology, biopsy of small lesions, etc.

*Intermediate:* Surgical procedures are more prolonged or complex that may pose the risk of significant complications or tissue injury. Examples include laparoscopic cholecystectomy, arthroscopy with intervention, bilateral varicose vein removal, tonsillectomy, inguinal hernia repair, breast lump resection, haemorrhoidectomy, appendicectomy, partial thyroidectomy, cataract surgery, uvuloplasty, minimally invasive repair of vaginal prolapse, vaginal hysterectomy, tendon repair of hand, fixation of mandibular fracture, etc.

*Major:* Surgical procedures are expected to last more than 90 minutes and include major gut resection, major joint replacement, mastectomy, extensive head and neck tumour resection, abdominal aortic aneurysm repair, major vascular bypass procedure, procedures involving free flap to repair tissue defect, amputation, total thyroidectomy, cystectomy, trans-urethral resection of prostate, resection of liver tumour, carotid endarterectomy, nephrectomy, total abdominal hysterectomy, spinal discectomy, etc.

### *Indication for surgery*

This is the underlying initiating disease/ event which ultimately resulted in the need for surgery.

### *Surgery type: Neurosurgery or orthopaedic*

Neurosurgical procedures are defined as involving the brain and cervical spine. Surgery on the thoracic and lumbar spine is defined as orthopaedic surgery.