

Rubrics for the practical assessment of Surgical Skills at University of Twente

Scrubbing

Name student:

Name assessor:

Date:

Before scrubbing:	Pass	Suboptimal	Fail
Jewellery off	1	0 Jewellery not removed, but repairs	Watch/earring (anything) not removed
Correct clothing (scrub suit/clogs)	1	0 Forgot scrub suit, but repairs	Forgot scrub suit
Hairnet on in changing room	1	0 Forgot hairnet, but repairs	Enters operating room without hairnet
Surgical mask on in scrub room, before scrubbing	1	0 Forgot surgical mask, but repairs	Enters operating room without surgical mask
Scrubbing:			
Follows all steps in correct order:	1	0 Repairs order after confusion	Forgot steps / interchanged without correction
a. Wetting hands	1	0 Forgot, but repairs	Forgot to wet hands
b. Soaping for at least 60 seconds	1	0 Too short, too small body surface (i.e. forgot wrists), or repairs soap step	Forgot soaping hands
c. Rinsing hands	1 Distal to proximal 1 Hands higher than elbows	0 Soap residue left behind, or repairs rinsing step after confusion	Forgot rinsing hands
d. Drying hands	1 Distal to proximal	0 Still wet body parts, or repair after confusion	Forgot drying hands
e. Alcohol use for at least 90 seconds	1 No other objects touched	0 Not thoroughly rubbed in, too short within 10 seconds, repair after confusion	Forgot alcohol step
Efficient time use	1 Procedure < 5 min	0 Procedure 5 to 7½ min -1 Procedure > 7,5 min	
Feedback:			Loss of sterility during scrubbing, without correction. Helping others / giving instructions

Pass = 1 point, Suboptimal = 0 or -1 points, Fail = fail scrubbing assessment. Grade = (number of points divided by 12) * 10.

Suturing skills

Name student:

Name assessor:

Date:

	1	2	3	4	5
1. Suturing technique selection	Student is unable to discriminate between techniques / materials	Can discriminate between suturing techniques but unable of providing a rationale for them	Selects appropriate technique but is unable to provide a rationale for instrument selection	Selects appropriate technique, superficial knowledge of materials	Selects appropriate technique immediately and able to provide a rationale for selected technique
2. Movement	Frequently makes unnecessary movements		Acceptable efficiency, some unnecessary movements		Economic movements, maximum efficiency
3. Instrument selection	Student is unable to discriminate between instruments		Selects appropriate instruments, unable to provide an adequate rationale for selection		Selects appropriate instruments immediately and provides a rationale for selected instruments
4. Instrument use	Repeatedly makes insecure and/or clumsy movements		Skillful use, at times a bit stiff or clumsy		Fluent movements, skillful use
5. Use of feedback	Ignores feedback		Uses feedback to improve performance		Requires no feedback for performance improvement
6. Knot tying	Knot is loose, slipping, not enough knots		Unilateral well tied knot		Right knot, right amount and right amount of alternations
7. Tissue sensitivity	Frequently uses unnecessary force or damages tissue due to inappropriate instrument use		Careful tissue handling, some tissue damage		Consistent, careful handling of tissue without damage
8. Final result	Final result not achieved	Secondary wound healing	Suture is cosmetically adequate	Suture is functionally adequate	Suture is functionally and cosmetically adequate
9. Safety	Disregards safety		Adequate attention to personal safety, neglects colleague / patient		Adequate attention to personal safety and safety of others
Feedback:					

Procedure-specific rating scale for suturing. Red colored boxes represent critical errors where students fail the assessment immediately. Scale from 1 (lowest) to 5 (highest).

Local anaesthesia

Name student:

Name assessor:

Date:

	1	2	3	4	5
1. Anaesthetic technique choice	Does not know differences between techniques, does not assess the wound.		Cannot give a motivated choice		Chooses the right technique and gives reasons for the choice
2. Materials choice	Choice of needle, anaesthetic drug and syringe incorrectly		Choice of anaesthetic drug, needle or syringe correct		Chooses correct material
3. Preparation	Makes many adjustments during procedure		Has forgotten a few things		Has everything ready and assembled in a logical place
4. Procedure, subcutaneous infiltration	Does not know how to infiltrate the area in question properly		Knows how best to infiltrate the area, the procedure could be better		Know how best to infiltrate the area, and performs the action adequately
5. Safety	Heedless of safety		Safe use for oneself, forgets colleague/patient		Safe use of equipment for oneself, colleagues and patient
6. Tissue damage	Uses unnecessary force frequently or causes tissue damage by improper use of instruments		Correct handling, infrequently tissue damage		Consistently correct handling without tissue damage
7. Final objective	Not achieved, incomplete anaesthesia		Complete anaesthesia achieved, but with some discomfort to the patient.		Full anaesthesia achieved, limited patient discomfort
Feedback:					

Procedure-specific rating scale for local anesthesia. Red colored boxes represent critical errors where students fail the assessment immediately. Scale from 1 (lowest) to 5 (highest).

Excision/Incision skills

Name student:

Name assessor:

Date:

	1	2	3	4	5
1. Blade choice	Knows no differences between blades		Does not give arguments for choice		Chooses the right blade and explains the choice well
2. Instrument choice	Knows no differences between instruments		Does not give arguments for choice		Chooses the right instruments and explains the choice well
3. Preparation	Must make many corrections during procedure		Forgets things occasionally		Has everything ready and in a logical place
4. Safety	Has no regard for safety		Safe use for self, forgets about colleague/patient		Safe use for self, colleague, and patient
5. End result	End goal not achieved	Secondary wound healing	Excision/Incision is cosmetically correct	Excision/Incision is functionally correct	Excision/Incision is both cosmetically and functionally correct
6. Instrument handling	Repeatedly makes uncertain and/or clumsy movements		Skilled use, occasionally appears stiff or clumsy		Smooth movements, skilful
7. Movement	Frequent unnecessary movements		Reasonably efficient, still some unnecessary movements		Economic movements, maximum efficiency
Feedback:					

Procedure-specific rating scale for excision/incision. Red colored boxes represent critical errors where students fail the assessment immediately. Scale from 1 (lowest) to 5 (highest).