

* P-POSSUM EXPOSED

David Hill

P-POSSUM Score Parameters (showing the lowest score for each category)

Physiological Parameters	
Age	< 61 yrs old
Cardiac	No cardiac failure
Respiratory	No dyspnoea
ECG	ECG normal
Systolic BP	110 - 130 mmHg
Pulse Rate	50 - 80 bpm
Haemoglobin	13 - 16 g/dl
WBC	4 - 10
Urea	<7.6
Sodium	>135 mmol/l
Potassium	3.5 - 5 mmol/l
GCS	15

Operative Parameters	
Operation Type	Minor Operation
Number of procedures	one
Operative Blood Loss	<100 mls
Peritoneal Contamination	No soiling
Malignancy Status	not malignant
CEPOD	elective

Table 1: Physiological score (to be scored at time of surgery)

Score	1	2	4	8
Age (years)	≤ 60	61-70	≥ 71	
Cardiac signs	No failure	Diuretic, digoxin, antianginal or hypertensive therapy	Peripheral oedema; warfarin therapy	
Chest radiograph			Borderline cardiomegaly	Cardiomegaly
Respiratory history	No dyspnoea	Dyspnoea on exertion	Limiting dyspnoea (one flight)	Dyspnoea at rest (rate ≥ 30/min)
Chest radiograph		Mild COAD	Moderate COAD	Fibrosis or consolidation
Blood pressure (systolic) (mmHg)	110 - 130	131 - 170 100 - 109	≥ 171 90 - 99	- ≤ 89

Continued next slide...

Table 1 (cont.): Physiological score - to be scored at time of surgery

Score	1	2	4	8
Pulse (beats/min)	50 - 80	81 - 100 40 - 49	101 - 120	≥ 121 ≤ 39
Glasgow coma score	15	12 - 14	9 - 11	≤ 8
Haemoglobin (g/100 ml)	13 - 16	11.5 - 12.9 16.1 - 17.0	10.0 - 11.4 17.1 - 18.0	≤ 9.9 ≥ 18.1
White cell count (x10 ¹² /l)	4 - 10	10.1 - 20.0 3.1 - 4.0	≥ 20.1 ≤ 3.0	
Urea (mmol/l)	≤ 7.5	7.6 - 10.0	10.1 - 15.0	≥ 15.1
Sodium (mmol/l)	≥ 136	131 - 135	126 - 130	≤ 125
Potassium (mmol/l)	3.5 - 5.0	3.2 - 3.4 5.1 - 5.3	2.9 - 3.1 5.4 - 5.9	≤ 2.8 ≥ 6.0
Electrocardiogram	Normal		Atrial fibrillation (rate 60 - 90)	Any other abnormal rhythm or ≥ 5 ectopics/min Q waves or ST/T wave changes

Table 2: Operative severity score

Score	1	2	4	8
Operative severity	Minor	Moderate	Major	Major +
Multiple procedures	1		2	> 2
Total blood loss (ml)	≤ 100	101 - 500	501 - 999	≥ 1000
Peritoneal soiling	None	Minor (serous fluid)	Local pus	Free bowel content, pus or blood
Presence of malignancy	None	Primary only	Nodal metastases	Distant metastases
Mode of surgery	Elective		Emergency resuscitation of > 2h possible Operation < 24h after admission	Emergency (immediate surgery < 2h needed)

Poosum Formula:

$$\ln (R/1-R) = -7.04 + (0.13 \times \text{physiological score}) + (0.16 \times \text{operative severity score})$$

P-Poosum Formula:

$$\ln (R/1-R) = -9.37 + (0.19 \times \text{physiological score}) + (0.15 \times \text{operative severity score})$$

Where R = predicted risk of mortality