

Risk Scores for Emergency Medicine

CHADS₂ score (Thromboembolic risk in AF)

- Congestive cardiac failure (+1)
- Hypertension (+1)
- Age >75 (+1)
- Diabetes (+1)
- Stroke/TIA previously (+2)

0 None/Aspirin; 1 Aspirin/Warfarin; 2+ Warfarin

CHADS-VASC (Thromboembolic risk in AF)

- Congestive cardiac failure (+1)
- Hypertension (+1)
- Age >75 (+2)
- Diabetes (+1)
- Stroke/TIA previously (+2)
- Vascular disease (+1)
- Age 65-74 (+1)
- Sex Category – female (+1)

0 None/Aspirin; 1 Aspirin/Warfarin; 2+ Warfarin

Rockall (Upper GI bleed)

- Age
 - <60 (0)
 - 60-79 (+1)
 - >80 (+2)
- Shock
 - None (0)
 - Pulse >100 and SBP>100 (+1)
 - SBP<100 (+2)
- Co-morbidity
 - No major (0)
 - IHD, CHF, other major (+2)
 - Renal failure, liver failure, metastatic cancer (+3)
- Diagnosis
 - Mallory Weiss tear (0)
 - All other (+1)
 - GI Malignancy (+2)
- Evidence bleeding
 - None (0)
 - Blood, adherent clot, spurting vessel (+2)

0-2 good prognosis; >8 high mortality

Glasgow-Blatchford (Upper GI bleed)

- Urea
 - 6.5-8.0 (+2)
 - 8-10 (+3)
 - 10-25 (+4)
 - >25 (+6)
- Hb (Men)
 - 12-13 (+1)
 - 10-12 (+3)
 - <10 (+6)
- Hb (Women)
 - 10-12 (+1)
 - <10 (+6)
- SBP
 - 100-109
 - 90-99 (+2)
 - <90
- Pulse >100
- Melaena
- Syncope (+2)
- Hepatic disease (+2)
- Heart failure (+2)

Low risk if 0. High probability of intervention if ≥ 6

ROSIER (Likelihood of stroke)

- Facial weakness +1
- Arm weakness +1
- Leg weakness +1
- Speech disturbance +1
- Visual field defect +1
- Syncope -1
- Seizure -1

Stroke unlikely if score ≤ 0 ; will not detect posterior circulation events

ABCD2 (Stroke risk after TIA)

- Age ≥ 60 1
- BP systolic >140 /diastolic >90 1
- Clinical features:
 - Speech disturbance 1
 - Unilateral weakness 2
- Duration:
 - 10-59 minutes 1
 - ≥ 60 minutes 2
- Diabetes 1

Score ≥ 4 increased risk of early CVA

TIMI (Risk after ACS)

- Age >65
- 3+ risk factors (FH <50 ; HTN; Cholesterol; DM; smoker)
- Known CAD with stenosis $>50\%$
- Aspirin use in last 7 days
- Recent angina (>2 /day)
- Elevated biomarker
- ST segment deviation >0.5 mm

Wells (DVT)

- Active cancer (Treatment within 6/12 or palliative care) 1
- Paralysis, paresis, or POP of leg 1
- Bedridden >3 days or surgery within 12/52 1
- Localised tenderness along deep venous system 1
- Entire leg swelling 1
- Calf swelling >3 cm compared to asymptomatic leg 1
- Pitting oedema greater in symptomatic leg 1
- Dilated superficial veins (non-varicose) 1
- Previous documented DVT 1
- Other diagnosis more likely than DVT -2

2-9 likely; -2-1 unlikely (Older versions had <1 , 1-2, >2)

Wells (PE)

- Clinical signs/symptoms of DVT 3
- Alternative diagnosis less likely than PE 3
- HR >100 1.5
- Immobilisation >3 days or surgery within 4/52 1.5
- Previous DVT/PE 1.5
- Haemoptysis 1
- Active cancer (Treatment within 6/12 or palliative care) 1

0-4 unlikely; >4 likely

Modified SAD PERSONS (Suicide risk)

S: Male sex (1)

A: Age <19 or >45 (1)

D: Depression/hopelessness (2)

P: Previous attempt or psychiatric care (1)

E: Excessive alcohol or drug use (1)

R: Rational thinking loss (organic or psychotic) (2)

S: Single, widowed, or divorced (1)

O: Organised or serious attempt (2)

N: No social support (1)

S: Stated future attempt (or ambivalent) (2)

Score 0-5 may be safe to discharge; 6-8 probably needs psychiatric review; >8 likely to need admission.

AMTS

- Date
- Time of day
- Age
- Date of birth
- Current location
- Memorise '42 West Street'
- WWII date (start or end)
- Recognise two objects
- Current Monarch
- Recall address
- Count 20 down

CURB-65 (Mortality in pneumonia)

- Confusion
- Urea >7mmol/L
- RR>30
- BP <90 sys/60 dias
- Age ≥65

0-1 low risk; 2 moderate (short inpatient or close review); 3+ severe

Also increased risk if:

- Multiple segments
- SpO₂ <92% or pO₂ <9.0 on air
- Apyrexial
- WCC <4 or >20
- CRP>50
- Positive blood culture

Alvarado (Likelihood of appendicitis)

- RLQ tenderness (+2)
- Rebound tenderness (+1)
- Temp >37.3°C (+1)
- Migration of pain to RLQ (+1)
- Anorexia (+1)
- Nausea/vomiting (+1)
- WCC>10 (+2)
- Neutrophilia (+1)

<3-4 appendicitis unlikely; ≥7 appendicitis likely

Glasgow (Pancreatitis)

- Age>55
- WCC>15x10⁹/L
- Glucose >10mmol/L
- Urea >16mmol/L
- pO₂ <7.9kPa
- CA²⁺>2mmol/L
- Albumin <32g/L
- LDH >600U/L
- AST >100U/L

≥3 in first 48 hours indicates severe disease

Ranson score (Pancreatitis)

(On admission, non-gallstone):

- Age >55
- WCC >16
- Glucose >10
- LDH >350
- AST >250

(On admission, gallstone):

- Age >70
- WCC >18
- Glucose >12.2
- LDH >400
- AST >250

Mortality: 0-2 2%; 3-4 15%; 5 40%

Paddington Alcohol Test

- How often do you drink alcohol:
 - Never – test ends
 - More often – advise against daily drinking
 - Daily – may be dependant
- What is the most you will drink in a day?
 - If >twice daily limit, PAT +ve
- Do you feel your attendance is related to alcohol?
 - Yes – PAT +ve

Modified Centor score (Likelihood of streptococcal pharyngitis)

- Age <15 (+1)
- Age ≥45 (-1)
- Absence of cough (+1)
- Pyrexia (+1)
- Enlarged/tender cervical LN (+1)
- Exudate/swelling of tonsils (+1)

-1-1: Unlikely strep pharyngitis; 4-5 probable – treat empirically. 2-3 possible – consider testing and treat if positive

Westley Croup Score

- Chest wall retractions
 - None (0)
 - Mild (+1)
 - Moderate (+2)
 - Severe (+3)
- Stridor
 - None (0)
 - When agitated (+1)
 - At rest (+2)
- Cyanosis
 - None (0)
 - When agitated (+4)
 - At rest (+5)
- Level of consciousness
 - Normal (0)
 - Disoriented (+5)
- Air entry
 - Normal (0)
 - Reduced (+1)
 - Markedly reduced (+2)

0-2 mild; 3-5 moderate; 6+ severe

Hunt and Hess (Subarachnoid haemorrhage)

- Grade 1: Asymptomatic, mild headache, slight nuchal rigidity
- Grade 2: Moderate to severe headache, nuchal rigidity, no neurological deficit other than cranial nerve palsy
- Grade 3: Drowsiness/confusion, mild focal neurological deficit
- Grade 4: Stupor, moderate-severe hemiparesis
- Grade 5: Coma, decerebrate posturing

Glasgow Meningococcal Septicaemia Prognostic Score

- Hypotension (<75 if under 4, <85 if older) (+3)
- Skin/rectal temperature difference >3°C (+3)
- Base deficit (Capillary) >8mmol (+1)
- GCS <8 or drop of >3 in one hour (+3)
- Lack of meningism (+2)
- Parental opinion of deterioration in last hour (+2)
- Widespread ecchymoses or extending lesions (+1)

Baux Score (Burn mortality)

Baux score = Age (years) + TBSA burned (%)

Revised Baux score (R-Baux) = Age + TBSA ± 17 (if inhalational burn)

Paediatric Baux score (P-Baux) = TBSA – Age ± 18 (if inhalational burn)

50% Mortality at score of 109.6, futility at 160 (2012 paper)

Abbreviated Burn Severity Index

- Gender: Male (1) / Female (0)
- Age: 1 for each 20 years or part thereof (max 5)
- TBSA: 1 for each 10% or part thereof
- Inhalation injury: 1 if present
- Full thickness burn: 1 if present

Score	Probability of survival
2-3	>99%
4-5	98%
6-7	80-90%
8-9	50-70%
10-11	20-40%
12-13	<10%

More recent studies suggest the score remains fairly valid, but younger ages should have less weighting (score 0 if ≤40; 1 if 41-60; 2 if 61-80; 5 if 81-100), but mortality slightly higher for each score.