12-Lead EKG Tool

I Lateral	aVR	V1 Septal	V4 Anterior
II Inferior	aVL Lateral	V2 Septal	V5 Lateral
III Inferior	aVF Inferior	V3 Anterior	V6 Lateral

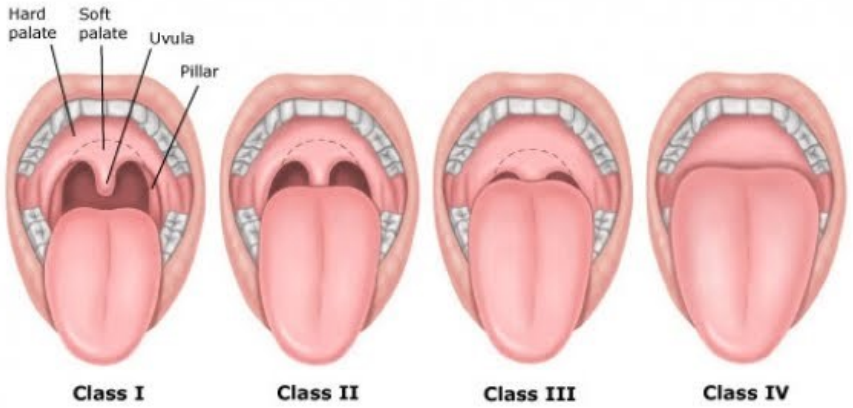
SITE	FACING	RECIPROCAL
SEPTAL	V1, V2	NONE
ANTERIOR	V3, V4	NONE
ANTEROSEPTAL	V1, V2, V3, V4	NONE
LATERAL	I, aVL, V5, V6	II, III, aVF
ANTEROLATERAL	I, aVL, V3, V4, V5, V6	II, III, aVF
INFERIOR	II, III, aVF	I, aVL
POSTERIOR	NONE	V1, V2, V3, V4

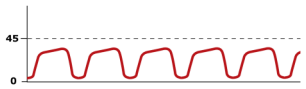
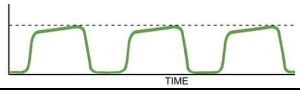
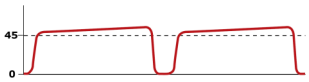
Reference

Airway References

Mallampati Classification

- **Class 1:** Full visibility of tonsils, uvula and soft palate
- **Class 2:** Visibility of hard and soft palate, upper portion of tonsils and uvula
- **Class 3:** Soft and hard palate and base of the uvula are visible *(predicted difficult)*
- **Class 4:** Only Hard Palate visible *(predicted difficult)*



$EtCO_2$		
Value	**Waveform**	**State of ventilation**
Less than 35 mmHg Hypocapnia		Hyperventilation. Consider slowing ventilator rate
35 - 45 mmHg Normal		Usually indicates adequate ventilation
Greater than 45 mmHg Hypercapnia		Hypoventilation. Consider increasing ventilator rate, assess adjunct for occlusion

Reference

APGAR

APGAR Score			
Sign	**0**	**1**	**2**
Appearance	Blue, Pale	Body pink, Extremities blue	Completely pink
Pulse	Absent	< 100	> 100
Grimace	No response	Grimace	Cough or Sneeze
Activity	Limp	Some flexion	Active motion of extremities
Respirations	Absent	Slow, Irregular	Good, Crying

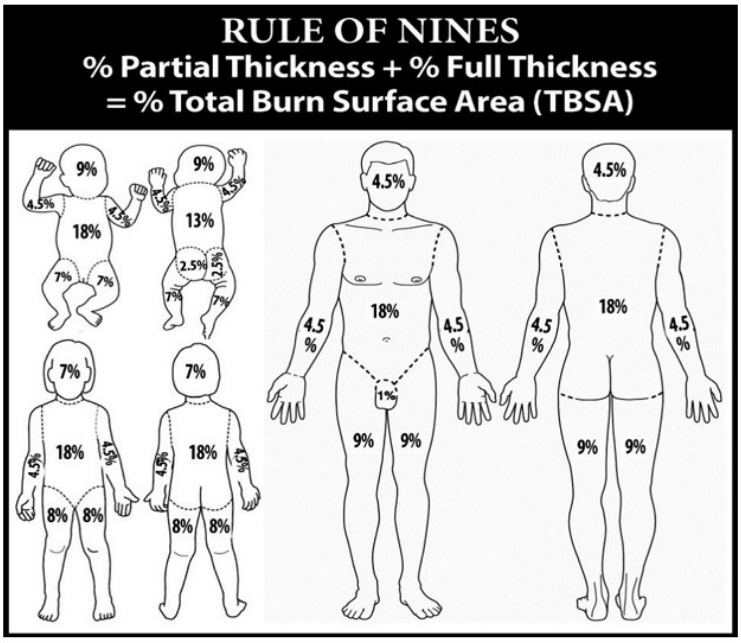
Reference

Burn Scoring
-Rule of Nines-

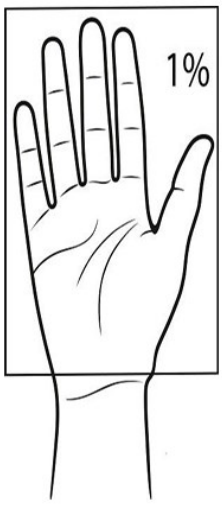
Rule of Nine's

% Partial Thickness + % Full Thickness = % Total Burn Surface Area (TBSA)

%BSA by anatomical area



Palm-and-hand calculation[a]



[a] Palm of hand (including fingers) of infant or child = 1% of the total body surface

Reference

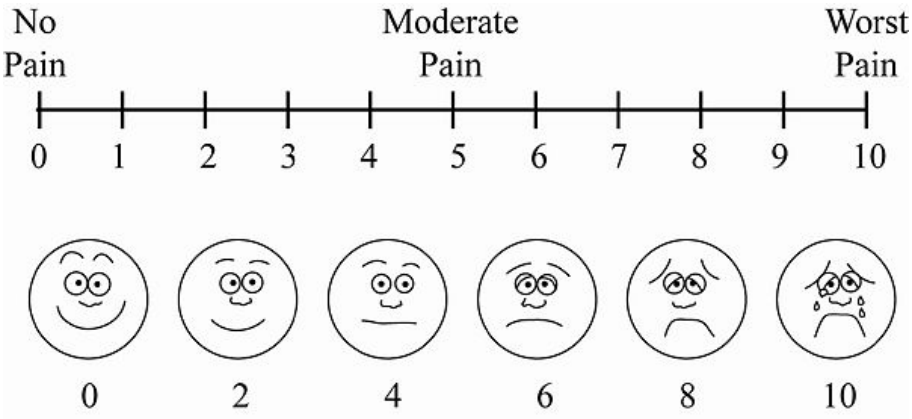
Glasgow Coma Scale

GLASGOW COMA SCALE (GCS)			
	Response		
Behavior	Adult	Pediatric	Score
Eye Opening	Spontaneous		4
	To Verbal		3
	To Pain		2
	None		1
Verbal Response	Oriented	Oriented (Smiles, coos, oriented to sounds, interacts)	5
	Confused	Confused (Cries but consolable, Irritable)	4
	Inappropriate Words	Inappropriate Words (Inconsolable, Persistent Crying)	3
	Incomprehensible Sounds	Incomprehensible Sounds (Moans to Pain)	2
	None		1
Best Motor Response	Obeys Commands		6
	Localizes Pain		5
	Withdraws from Pain		4
	Flexion to Pain		3
	Extension to Pain		2
	None		1

Ideal Body Weight

Ideal Body Weight (kg)					
Height	Male	Female	Height	Male	Female
5’	50	46	5’9”	71	66
5’1”	52	49	5’10”	73	69
5’2”	55	50	5’11”	75	71
5’3”	57	52	6’	78	73
5’4”	59	55	6’1”	80	75
5’5”	62	57	6’2”	82	78
5’6”	64	59	6’3”	85	80
5’7”	66	62	6’4”	87	82
5’8”	68	64	6’5”	89	85

Pain Scales



Verbal Descriptor Scale	0 No Pain	1 2 3 Mild	4 5 6 Moderate	7 8 9 Severe		
Descriptive Scale	Alert Smiling	No Humor Serious, Flat	Furrowed Brow Pursed Lips Breath Holding	Wrinkled Nose Raised Upper Lip Rapid Breathing	Slow Blink Open Mouth	Eyes Closed Moaning Crying
Activity Tolerance Scale	No Pain	Can be Ignored	Interferes with Tasks	Interferes with Concentration	Interferes with Basic Needs	Bed Rest Required

Reference

Pediatric Vital Signs

Normal Pediatric Vital Signs			
Age	**Pulse**	**Systolic BP**	**Respiratory Rate**
Neonate (0-1 mo)	100-180	>60	30-60
Infant (1-12 mo)	100-160	>70	30-60
Toddler (1-3 yrs)	90-150	>70 + (age in yrs x 2)	24-40
Pre-School (3-5 yrs)	80-140	>70 + (age in yrs x 2)	22-34
School Age (5-12 yrs)	70-120	>70 + (age in yrs x 2)	18-30
Adolescent (12-18 yrs)	60-100	>90	12-20

***Created based off of Illinois EMSC Guidelines*

Quick Confusion Scale

The Quick Confusion Scale				
Item	**Scoring System**			
	# Correct	X weight	=	Total
What year is it now?	0 or 1 (score 1 if correct and 0 if incorrect)	2	=	
What month is it?	0 or 1	2	=	
Present memory phrase: "Repeat this phrase after me and remember it: **John Brown 42 Market Street, New York.**"				
About what time is it?	0 or 1	2	=	
Count backward from 20 to 1.	0, 1, or 2	1	=	
Say the months in reverse.	0, 1, or 2	1	=	
Repeat the memory phrase. (each underlined portion correct is worth 1 point)	0, 1, 2, 3, 4 or 5	1	=	
Final score is the sum of the totals:			=	

Adapted from: Huff JS, Farace E, Brady WJ, et al. The quick confusion scale in the ED: Comparison with the mini-mental state examination. *Am J Emerg Med* 2001;19:461-464

Explanation of Scoring for Quick Confusion Scale	
The highest number in category indicates correct response; decreased scoring indicates increased number of errors	
What year is it now?	Score 1 if answered correctly, 0 if incorrect.
What month is it?	Score 1 if answered correctly, 0 if incorrect.
About what time is it?	Answer considered correct if within one hour: score 1 if correct, 0 if incorrect
Count backward from 20 to 1.	Score 2 if correctly performed; score 1 if one error, score 0 if two or more errors
Say the months in reverse.	Score 2 if correctly performed; score 1 if one error, score 0 if two or more errors
Repeat the memory phrase: John Brown 42 Market Street, New York."	Each underlined portion correctly recalled is worth 1 point in scoring; score 5 if correctly performed; each error drops score by one.
Final Score is sum of the weighted totals; items one, two, and three are multiplied by 2 and summed with the other item scores to yield the final score.	

Adapted from: Huff JS, Farace E, Brady WJ, et al. The quick confusion scale in the ED: Comparison with the mini-mental state examination. *Am J Emerg Med* 2001;19:461-464

Richmond Agitation-Sedation Scale

Richmond Agitation-Sedation Scale			
Score	**Term**	**Description**	**ECIEMS Treatment**
+4	Combative	Overtly combative, violent, immediate danger to staff	**MIDAZOLAM or KETAMINE****
+3	Very agitated	Pulls or removes tubes and catheters, aggressive	**MIDAZOLAM**
+2	Agitated	Frequent, nonpurposeful movements, fights interventions	**MIDAZOLAM**
+1	Restless	Anxious but movements are not aggressive or vigorous	Verbal reassurance and calm patient
0	**Alert and Calm**		
-1	Drowsy	Not fully alert but has sustained awakening and eye contact to voice (> 10 seconds)	
-2	Light Sedation	Briefly awakens with eye contact to voice (< 10 seconds)	
-3	Moderate Sedation	Movement or eye opening to voice (no eye contact)	
-4	Deep Sedation	No response to voice but movement or eye opening to physical stimulation	
-5	Unarousable	No response to voice or physical stimulation	

Stroke Scale

Prehospital Stroke Scale

****If any of the below are abnormal, it is considered a positive stroke scale.****

Balance

Loss of Balance: Sudden loss of balance or coordination
- **Normal**: Can walk unassisted and upright. No change in ability to walk
- **Abnormal**: Sudden loss of balance, staggering gait, severe vertigo

Eyes

Loss of Vision: Sudden loss of vision in one or both eyes or onset of double vision
- **Normal**: No sudden vision changes
- **Abnormal**: Sudden vision change or loss in one or both eyes

Face

Facial Droop: Have patient smile or show teeth
- **Normal**: Both sides of face move equally
- **Abnormal**: One side of face does not move as well as the other side

Arm

Motor Weakness: Arm drift (close eyes, extend arms, palms up)
- **Normal**: Both arms move the same or both arms do not move at all
- **Abnormal**: One arm drifts down compared with the other or does not move

Speech

Abnormal Speech: Have the patient say "you can't teach an old dog new tricks".
- **Normal**: Patient uses correct words with no slurring
- **Abnormal**: Patient slurs words, uses the wrong words, or is unable to speak

Time

Time of Onset: When was the person last known well?
- Time last seen normal:_____
- Time of symptom onset: _____

If patient has **ARM WEAKNESS** present, continue on to VAN screening tool

VAN Screening Tool

****Patient must have weakness plus one or all of the V, A, or N to be VAN positive.****

Vision

Vision Loss *(display 2 fingers left, 1 finger right)* *(usually same side as weakness)*
☐ Right ☐ Left
Gaze (*usually away from side of weakness)*
☐ Right ☐ Left

Aphasia

***Usually goes with right sided weakness*
☐ Expressive (inability to speak or naming difficulties) **Do not count slurring of words**
(repeat "today is a sunny day" and name 2 objects)
☐ Receptive (not understanding or can't follow commands) *(close eyes, make a fist)*

Neglect

***Usually goes with left sided weakness*
☐ Patient ignores left side when both sides are touched simultaneously
(With eyes closed, ask patient to say "left, right or both" when arms are touched)

Reference

Trauma Score - Adult

Revised Trauma Score (RTS)		
	Measure	**Score**
Respiratory Rate (breaths/min)	10-29	**4**
	> 29	**3**
	6-9	**2**
	1-5	**1**
	0	**0**
Systolic Blood Pressure	> 89 mmHg	**4**
	76-89 mmHg	**3**
	50-75 mmHg	**2**
	1-49 mmHg	**1**
	None	**0**
Glasgow Coma Scale	13-15	**4**
	9-12	**3**
	6-8	**2**
	4-5	**1**
	< 4	**0**
Higher score associated with higher survival.		

Trauma Score - Pediatric

Pediatric Trauma Score (RTS)		
	Measure	**Score**
Weight	>20 kg (>44 lbs)	**2**
	10-20 kg (22-44 lbs)	**1**
	< 10 kg (<22 lbs)	**-1**
Airway Status	Normal	**2**
	Maintainable	**1**
	Unmaintainable	**-1**
Systolic BP	> 90 mmHg	**2**
	50-90 mmHg	**1**
	< 50 mmHg	**-1**
Central Nervous System	Awake	**2**
	Obtunded/Loss of Consciousness	**1**
	Coma/Decerebrate	**-1**
Fractures	None	**2**
	Closed Fracture	**1**
	Open/Multiple Fractures	**-1**
Wounds	None	**2**
	Minor	**1**
	Major/Penetrating	**-1**
Higher scores correlate with lower mortality (total scores range from -6 to 12 points).		