

# The Recognition of a Sick Baby and Child in the Emergency Department

For on site tutorials as part of the remote simulation program

Paediatrics: 4

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# Sponsor

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# Introductions



# General Aims

- Learn in a team setting
- Blend clinical skills with team skills
- Reflect critically on practice

# Ground Rules

- Participation
- Privacy
- Confidentiality
- Disclaimer
- Debriefing
- Mobile phones

# Session Objectives

- Discuss a Structured Approach to Sick Baby and Child in the Emergency Department
- To demonstrate initial assessment & management
- Recognise the severity of illness
- Allocation of roles in teams
- Communicate within teams in the Emergency Department

# A structured approach overview

## **RESUSCITATION** *(0-10min)*

1. **Call for assistance**
2. Conduct **initial Assessment** (DRS-ABCDE)
3. Initiate **Emergency Treatment**
4. **Re-evaluate** (repeat steps 1 - 3)

## **SECONDARY CARE** *(10-60 mins)*

1. Complete a focussed, systematic **assessment** (history & examination, investigations)
2. Initiate **specific** definitive treatments
3. Initiate **supportive** care
4. Actively look for and manage complications

## **TERTIARY CARE** *(1 - 24 hr)*

1. Consult
2. **Check** results + **Reassess** patient
3. Arrange appropriate **disposition**
4. Provide **continuity** of care
5. **Document** management

# Initial assessment

- D** Identify potential **D**angers to patient and staff
- R** Check **R**esponsiveness of patient
- S** **S**end for help
- A** **A**irway & remember C-spine protection
- B** **B**reathing
- C** **C**irculation
- D** **D**isability & dextrostix (DEFG)
- E** **E**nvironmental



# Assessing Children

- Physiological & anatomical differences
- Communication
- Parents
- One size doesn't fit all
- Spectrum of disease
- Compensate 'til late



# Airway

- Patency
- Posture
- Added sounds
- Effort of breathing



# Breathing

- Rate
- Colour
- Auscultation
- Saturations
- Clinical picture



FAMILY NAME \_\_\_\_\_ MRN \_\_\_\_\_  
 GIVEN NAME \_\_\_\_\_  MALE  FEMALE  
 D.O.B. \_\_\_\_/\_\_\_\_/\_\_\_\_ M.O. \_\_\_\_  
 ADDRESS \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

FAMILY NAME \_\_\_\_\_ MRN \_\_\_\_\_  
 GIVEN NAME \_\_\_\_\_  MALE  FEMALE  
 D.O.B. \_\_\_\_/\_\_\_\_/\_\_\_\_ M.O. \_\_\_\_  
 ADDRESS \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

Facility: \_\_\_\_\_

STANDARD PAEDIATRIC  
OBSERVATION CHART (SPOC)

1-4 Years

Date	Time	Level of Consciousness	Pain Score	Temperature (°C)	BGL	Weight	Initials
		Alert	Severe (7-10)	41			
		Verbal	Moderate (4-6)	40.5			
		Pain	Mild (1-3)	40			
		Unresponsive	Nil	39.5			
		Enter appropriate letter. A= Alert, V= Rousable only by voice (consider GCS), P= Rousable					
				39			
				38.5			
				38			
				37.5			
				37			
				36.5			
				36			
				35.5			
				35			
				34.5			
				34			

Blue,  
Yellow and  
Red zones

Age appropriate

- CONSIDER EARLIER ESCALATION OF PATIENTS WITH
- Chronic or complex conditions
  - Post-operative
  - Pre-Existing cardiac or respiratory conditions
  - Opioid Infusions

ADDITIONAL CRITERIA FOR ESCALATION ON BACK PAGE

GUIDE TO AIRWAY / BREATHING ASSESSMENT			
	MILD	MODERATE	SEVERE
Airway	• Stridor on exertion	• Stridor at rest • Partial airway obstruction	• New onset of stridor • Imminent airway obstruction
Behaviour & Feeding	• Normal • Talks in sentences	• Some / Intermittent irritability • Difficulty talking or crying • Difficulty feeding or eating	• Agitated /Confused • Drowsy • Unable to talk or cry • Unable to feed or eat
Respiratory Rate	• Mildly increased	• Moderately increased	• Markedly increased • Decreasing (exhaustion)
Accessory Muscle Use	• None /Minimal	• Moderate recession • Tracheal tug • Nasal flaring	• Severe recession • Gasping • Grunting • Extreme pallor • Cyanosis
Apnoeic Episodes	• None	• Abnormal pauses in breathing	
Oxygen	• No oxygen requirement	• Mild Hypoxaemia, corrected by oxygen • Increasing oxygen requirement	

Respiratory effort table

AIRWAY / BREATHING

CIRCULATION

Respiratory Rate (breaths per minute)	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5															
Respiratory Effort	Severe	Moderate	Mild	Normal	Severe	Moderate	Mild	Normal	Severe	Moderate	Mild	Normal	Severe	Moderate	Mild	Normal	Severe	Moderate	Mild	Normal	Severe	Moderate	Mild	Normal	Severe	Moderate	Mild	Normal	Severe	Moderate	Mild	Normal														
SpO <sub>2</sub> (in any amount of O <sub>2</sub> )	100	95	90	85	80	75	<70	100	95	90	85	80	75	<70	100	95	90	85	80	75	<70	100	95	90	85	80	75	<70	100	95	90	85	80	75	<70											
Capillary Refill	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds	≥3 Seconds	<3 Seconds														
Heart Rate (beats per minute)	220	210	200	190	180	170	160	150	140	130	120	110	100	90	80	70	60	220	210	200	190	180	170	160	150	140	130	120	110	100	90	80	70	60												
Blood Pressure (mmHg) Systolic/Blood Pressure is the trigger	> <	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10

Light Blue = Increase Frequency of Observations   Yellow = Clinical Review   Red = Rapid Response

# Respiratory video



# Circulation

- Heart Rate
- Capillary refill
- Blood Pressure
- Skin colour
- Skin temp



# The Shocked Child

## Most Common Causes

- Hypovolaemia
- Septicaemia
- Trauma

Shock & Hypoglycaemia  
go hand in hand



# Disability

- Conscious level
- Pupils
- Pain
- DEFG-don't forget the glucose
- Posturing





# Posture

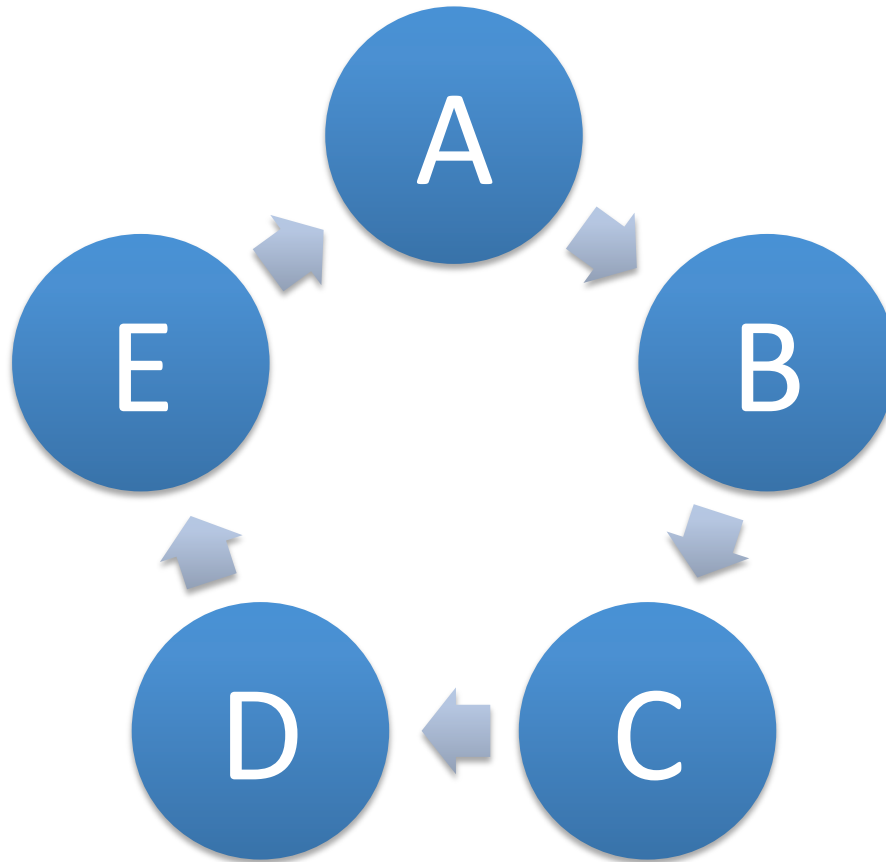


# Exposure

- Temperature
- Trauma
- Rash
- Bruises



Now let's have a go...



# Resources

- Age appropriate BTF charts
- Formulae
- Broselow Tape and Trolley
- Drug Books
- NETS calculator
- Parents

# Secondary Care

## Assessment

### Focussed History (AMPLE)

- **A**llergies
- **M**edications
- **P**ast medical history / co-morbidities / social history/  
immunization
- **L**ast ate and drank
- **E**vents related to current problem, along with corroborative history from relatives and ambulance. Any environmental issues

# Scenario



- Rose has been brought in by her parents unusually drowsy.

# Summary

- Observation provides a wealth of information
- DRS-ABCDE approach to assessment
  - Resuscitation, secondary care, tertiary care
- Paediatric tools aid your assessment
- Include the parents and child in the process

# References

- Advanced Paediatric Life Support Manual (5<sup>th</sup> Edition), 2011.
- NSW Health Policy “Children and Infants – Recognition of a sick baby or child in the emergency department”, 2011.



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