

<b>Scenario:</b> Bronchiolitis	<b>Patient:</b> 6 month old Zara	<b>Simulator</b> Zara
<b>Case Summary:</b>  Zara is a 6 month old girl who has been unwell for the past 3 days with an upper respiratory tract infection, cough, increasing shortness of breath and difficulty with feeding. She has had reduced numbers of nappies and is lethargic on presentation. She was a premature birth with several weeks in the special care nursery for respiratory difficulty. Her brothers suffer from asthma, but she has nil other medical problems. She has had all her immunizations and takes no regular medication. She is hypoxic and has several apneic episodes requiring assisted ventilation (BVM, high flow, intubation).		<b>Participant Briefing:</b>  Zara, 6 month old girl with 3 days of fevers, cough and increasing shortness of breath. Her mother has noticed she has had difficulty feeding this morning.
<b>Clinical Issues</b>		<b>Human factors / Non technical issues</b>
Structured approach to assessment of the infant with shortness of breath. Management of bronchiolitis in 6 month infant		Team preparation & resource allocation Team communication Communication with child & parent
<b>Learning Objectives:</b>  <b>Communicate</b> with child & parent appropriately  <b>Demonstrate</b> a structured assessment of a child  <b>Interpret</b> findings & manage appropriately <b>Communicate effectively in a team</b>		
<b>Faculty Actors:</b> Parent		
<b>Patient Moulage:</b> Normal baby clothes		

<p><b>Equipment &amp; Props:</b></p> <p>EdWISE Paediatric box          Zara manikins          Paediatric charts for local setting          Paediatric normal values chart</p>		
Patient presentation	Expected response by participants	Faculty /Actors Notes
<p><b>Initial Presentation</b></p> <p>Drowsy and lethargic          Airway clear          RR 55, decreased breath sounds, recession ++ ,exp wheeze &amp; crackles          SaO2 90%;          HR 170;          BP 80/60,          Cap refill 3 secs,          T 36</p>	<p><b>Initial assessment</b></p> <p>Role allocation          Structured approach to assessment and management          Including application of oxygen, IV access, IVF          Investigations - FBC/UEC/VBG/BSL/CXR</p> <p>Effective communication with mother</p>	<p>Distressed mother, who can provide further history - runny nose for three days, shortness of breath with wheezy cough last two days getting worse, gave child brothers ventolin this morning because she was so bad, didn't help. Decreased oral intake today, less than half or usual input, can't recall last nappy change. Attends day care, born premature, family history of asthma.</p> <p>Mother should ask appropriate questions regarding management</p>

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<p><b>Progression</b>  Deteriorates despite interventions - becomes unresponsive,  SaO2 86%;  RR 20 – with apnoea every 40 seconds for 20 seconds  HR 90;  CR 4secs  BP 70/20  BGL 3.0 mmols</p> <p>VBG pH 7.35, PCO2 73, PO2 68 BE -4, lactate 4</p>	<p>Should prompt team to assist breathing with BVM</p> <p>Consider other forms of ventilation support – High flow nasal prongs/ bubble CPAP/Neopuff</p> <p>Consider need to intubate &amp; call for help if beyond skill set</p>	<p>Mother anxious and asking questions</p>
<p><b>Progression</b>  O2Sats increase to 98% with effective BVM  HR 160  CR 3secs  BP 80/60</p>	<p>Reassess after treatment given</p> <p>Consider appropriate place to care for child – NETS</p>	<p>Communication with mother on progress &amp; plans</p> <p>Faculty at simulation centre to respond as NETS/Paediatric support and provide advice appropriate to team and resources available.</p>
<p><b>Debrief Guide</b></p>		
<p><b>Key clinical issues</b>  Changing priorities with deteriorating child, recognizing lack of improvement (deterioration)  Management of the child with bronchiolitis.</p>	<p><b>Key non technical issues</b>  Team work and communication.  Communication with mother.  Handover to senior staff via telephone input.</p>	

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