

CP-CRE Mini-review

Supplementary Material

Table S1. Summary of microbiology cultures.

Date of life	Clinical indicator	Blood culture	Urine culture	CSF culture	Swabs done	Sensitivity pattern		Antibiotics administered
						Antibiotic	Sensitivity	
Case 1 Twin A								
1	Cardiorespiratory distress at birth, premature spontaneous labor	No growth after 36 hours incubation			Rectal - Klebsiella pneumoniae (ESBL producer) – heavy growth Axilla - Klebsiella pneumoniae (ESBL producer) – light growth. ETT - No Ureaplasma urealyticum isolated. No Large colony of Mycoplasma isolated	Klebsiella pneumoniae Ampicillin R Cefotaxime/Cefotolozane S Tazobactam S Gentamicin S Gentamicin Meropenem Tigecycline		Empiric ampicillin and gentamicin commenced at birth. Gentamicin switched to Colistin with further clinical deterioration. Colistin given as intravenous 5mg/kg/day divided q 8 hourly. Antibiotics stopped with negative blood culture result at 36 hours
3	Surveillance				ETT, umbilical, rectal for NDM1 E. coli - No			

					carbapenemase-producing organisms isolated.	
8	Surveillance				ETT, umbilical, rectal, axillary for NDM1 CPE - No growth	
29	Persistent tachycardia HR 190-200, lethargy, C-reactive protein increasing from 68 to 88	No growth after 36 hours incubation	Escherichia coli (non-ESBL producing strain)	No growth	Escherichia coli Ampicillin S Cefotaxime S Gentamicin S Meropenem	Empiric ampicillin, Colistin and Meropenem commenced. Ampicillin only continued for 7 days with culture results
30	Surveillance				ETT, umbilical, rectal, axillary for the carbapenemase-producing organism - No growth	
43	Surveillance				Nose and perianal/rectal - No growth	

Case 1 Twin B

1	Cardiorespiratory distress at birth, premature spontaneous labour	No growth after 36 hours incubation	Rectal - Klebsiella pneumoniae (ESBL producer) – light growth. Axilla, Gastric aspirate - No growth	Klebsiella pneumoniae Ampicillin R cefotaxime R / Cefotolozane S tazobactam S gentamicin Meropenem	Empiric ampicillin and gentamicin commenced at birth. Gentamicin switched to Colistin with further clinical
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				Tigecycline	deterioration. Colistin given as intravenous 5mg/kg/day divided q 8 hourly. Antibiotics stopped with negative blood culture result at 36 hours
3	Surveillance			ETT, umbilical, rectal for NDM1 E. coli - No carbapenemase-producing organisms isolated	
8	Surveillance			ETT, umbilical, rectal, axillary for NDM1 CPE - No growth	
15	Blood in stool, necrotizing enterocolitis considered but ruled out	No growth after 36 hours incubation			No antibiotics commenced
30	Surveillance			ETT, umbilical, rectal, axillary for the carbapenemase-producing organism – No growth	
37	Increasing ventilatory requirement, right upper lobe collapse chest	No growth after 36 hours incubation	No growth	ETT - Heavy growth of Staphylococcus aureus, moderate growth of	<u>Staphylococcus aureus</u> Cloxacillin S Penicillin R Vancomycin S <u>Klebsiella pneumoniae</u>

	radiograph, initially improved with ventilatory maneuvers			Klebsiella pneumoniae (ESBL producer) and scant growth of Escherichia coli	Ampicillin Cefotaxime Gentamicin Meropenem	R R S S	
					Escherichia coli		
					Ampicillin Cefotaxime Gentamicin Meropenem	S S S S	
42	Persisting increasing ventilatory requirement			ETT aspirate - Staphylococcus aureus and Escherichia coli (ESBL producer)	Staphylococcus aureus Cloxacillin Penicillin Vancomycin Escherichia coli Ampicillin Cefotaxime Gentamicin Meropenem	S R S S R R S S	Ertapenem for 10 days for ventilator acquired pneumonia
43	Increasing oxygen requirement, related to symptomatic patent ductus arteriosus	No growth after 36 hours incubation	1 to 10 X E5 CFU/L Coagulase-negative staphylococci		Coagulase-negative staphylococci Ampicillin Cloxacillin Vancomycin	R R S	Assumed contamination
63	Surveillance			Umbilical, nose and perianal/rectal - No growth			

Note. CPE= carbapenemase-producing Enterobacteriaceae, CFU= colony forming units, CSF= cerebrospinal fluid, E.coli = Escherichia coli, ESBL= extended spectrum beta-lactamases, ETT=endotracheal tube, NDM= New Delhi metallo-β-lactamase, PCR= polymerase chain reaction, R= resistant, S = sensitive.