

Exercise on Economic Evaluation of ProSPoNS Study

Online Workshop On Health Economics

September 14th, 2021

Study Design??

Study Design	Justification
Cost-benefit analysis	
Cost-effectiveness analysis	
Cost-utility analysis	

Study Design

Study Design	Justification
Cost-benefit analysis	Only if there are any additional benefits of this design??
Cost-effectiveness analysis	<ul style="list-style-type: none">- Primary: Under RCT, we are measuring the outcomes in terms of reduction in neonatal sepsis episodes prevented (PSBI)- Secondary: Late-onset sepsis; Clinically severe infections; Deaths
Cost-utility analysis	<ul style="list-style-type: none">- DALYs (Neurodevelopmental disability such as cerebral palsy and neurosensory deficits)

Framework??

Method/Consideration	Choice	Justification
Intervention		
Comparator		
Target Population		
Objective		
Target Audience/Policy Use		

Framework

Method/Consideration	Choice	Justification
Intervention	Vivomixx (8 strain probiotics)+Sepsis management Dose: 1ml/day (10 billion CFU) for 30 days Intervention delivery: Under the supervision of study staff (field worker)	Effectiveness of Vivomixx for preventing neonatal sepsis is being assessed under trial
Comparator	<ul style="list-style-type: none"> - Routine care (No Probiotics) - Any other?? 	<ul style="list-style-type: none"> - Effectiveness of Vivomixx is being assessed under trial against Placebo - Use of antibiotic is routine practice for sepsis management.
Target Population	High-risk LBW neonates (Both pre-term and small-for-date babies)	
Objective	To assess the incremental cost per DALY averted with use of probiotics for prevention of neonatal sepsis compared to routine care.	Besides effectiveness, evidence on cost-effectiveness is mandatory for adoption of treatment/intervention under public policy
Target Audience/Policy Use	<ul style="list-style-type: none"> - National Health Mission (NHM) - Any other 	If this intervention is to be implemented under RMNCH program



Framework....??

Method/Consideration	Choice	Justification
Model or Trial based CEA or Both		
Perspective		
Analytic Horizon		
Costs		
Outcomes		
Discount rate		

Method/Consideration	Choice	Justification
Model or Trial based CEA or Both	Both	<ul style="list-style-type: none"> - Short-term outcome estimates will be used for trial - Use of model-based CEA will enable us to assess long-term outcomes (and also subgroup analysis)
Perspective	Societal (without indirect costs)	<ul style="list-style-type: none"> - Out-of-pocket burden associated with sepsis management among LBW neonates
Analytic Horizon	6 months	To model long-term outcomes (DALYs)
Costs	<ul style="list-style-type: none"> - Health System Costs (Vivomixx cost; Cost of routine HBPNC care; cost of illness management etc.) - OOP expenditures (Doctor's consultation; bed charges; Drug costs; Vitamin/Mineral supplement costs; Investigations; Procedures; Informal payments; Travel cost etc. 	As we have chosen a societal perspective for this study, therefore, we need to account for both health system and patients costs
Outcomes	<ul style="list-style-type: none"> - DALYs 	Study design: Cost-effectiveness/Cost-utility analysis
Discount rate	3%	Recommended by HTAIN guidelines

Thanks!!

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