HEALTH ECONOMIC EVALUATION 24/7 EICU PROJECT

Costs	**sICU1**		Difference (C-B)	Monthly Figures	Total cost ($)	**cICU1**		Difference (F-E)	Total Cost ($)
	Pre	Post				Pre	Post		
	1/5/2021 to 1/7/2021	1/1/2022 to 1/12/2022				1/5/2021 to 1/7/2021	1/1/2022 to 1/12/2022		
Upfront setup costs of VCC						0	0		
Capital Equipment (fixed cost)	0	9500	9500	158.33	158.33	0	0		
Staff Training (fixed cost)	0	0	0	NA	0	0	0		
Overhead and admin costs per year	0	0	0	0	0	0	0		
Dedicated Staff Salaries per year	0	132500	132500	11042	11042	0	0		
Other costs			0			0	0		
VMO Salary per year	800000	800000	0	0	0	8E+05	840000		
Other costs such as VMO travel etc.	600000	600000	0	0	0				
Total Cost					11200			0	
Outcomes/Benefits/Cost Savings									
Risk adjsuted Mortality Scores	**Same**		0	NA					
Number of transfers out of ED and ICU per month	11	6	-5	-5	-6850	11	6	-5	-5000
Number of ICU Admissions per month	53	38	-30	-30	-2E+05	45	41	-8	-52592
LOS (median)	2	2	0	0		2	2	0	
ED Presentations per month (mean)	tba	tba				3078	3131		

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Total Cost Savings					**204070**				**57592**
Incremental cost	Cost of treatment - cost of control		11200						
Incremental Benefit	Cost Savings from treatment - Cost Savings from Control		146478						
Incremental Cost Effectiveness Ratio (ICER)			**0.07646**	Cost Effective - It will cost around 8 cents to save $1 via implementation of 24/7 eICU model					
		OR	**13.0784**	Cost Effective - Every dollar spent by implementing 24/7 eICU model will save around $13					
Assumptions:									
Cost of Transfers fron sICU1	$1370 per transfer								
Cost of Transfers fron cICU1	$1000 per transfer								
Cost of one ICU episode assuming LOS of 2 days	13148								
Deprecation of IT Equipment	20% per year over 5 years (NSW Health accounting policy)								
Notes:									
There was no change in patient quality of care as LOS and Risk adjusted Mortality scores were in similar range under both models of care									
The benefits from a 24/7 eICU model mainly accrued from savings through reduction in transfers and ICU admissions									
study ICU1 post period: January to December 2022 and pre period May and June 2021									
Control ICU1 post period: January to December 2022 and pre period May and June 2021									
The data used for ICU admissions, Transfers and ED presentation are provided in the next worksheet.									

yearly crude cost savings in Study ICU1 were:	2448840	dollars
Yearly crude cost savings in control ICU1 were:	691104	dollars
Yearly the incremental cost savings from 24/7 eICU is:	**1757736**	dollars
Yearly the incremental cost of implemeting the model is :	**134400**	dollars

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HEALTH ECONOMIC EVALUATION 24/7 EICU PROJECT

Costs	**sICU2**		Difference (C-B)	Monthly Figures	Total cost ($)
	Pre	Post			
	1/5/2021 to 1/7/2021	1/1/2022 to 1/12/2022			
Upfront setup costs of VCC					
Capital Equipment (fixed cost)	0	0	0	0	0
Staff Training (fixed cost)	0	15000	15000	1250	15000
Overhead and admin costs per year	0	2000	2000	166.67	166.666667
Dedicated Staff Salaries per year	0	1E+05	132500	11042	11041.6667
Other costs			0		
VMO Salary per year	0	1E+05	133200	11100	11100
Other costs such as VMO travel etc.	0	0	0		
Total Cost					37308.3333
Outcomes/Benefits/Cost Savings					
Risk adjsuted Mortality Scores	**Same**		0	NA	
Number of transfers out of ED and ICU per month	11	5	-6	-6	-7200
Number of ICU Admissions per month	73	61	-33.6	-33.6	-220886.4
LOS (median)	2.8	2.8	0	0	
ED Presentations per month (mean)	2003	1963			
Proportion of ICU admission to ED presentation	3.6445	3.107			
Total Cost Savings (Benefit)					**228086.4**
Benefit Cost Ratio = Total Cost Savings/Total implementation costs			**6.113551**	Cost Effective - Every dollar spent by implementing 24/7 eICU model will save around $6	

Assumptions:					
Cost of Transfers fron sICU2	$1100 per transfer				
Cost of one ICU episode assuming LOS of 2.8 days	18407				
Notes:					
There was no change in patient quality of care as LOS and Risk adjusted Mortality scores were in similar range under both models of care					
The benefits from a 24/7 eICU model mainly accrued from savings through reduction in transfers and ICU admissions					
study ICU2 post period: January to December 2022 and pre period May and June 2021					

yearly crude cost savings in Study ICU2 were:	$2737036.8	
Yearly crude implementation costs	$447700	