

Optimus PRIME Site Summary:

Hospital Name

Date of visit: 29/07/2024

Report Ref: 88

Children's Health Queensland Optimus PRIME course aids teams throughout Queensland to optimise their team, environment and system for paediatric retrieval in medical emergencies. Today we considered DKA, Status Epilepticus, Emergency Intubation and Septic Shock management.

The following strengths, latent safety threats and ideas were identified by participants on the course. These issues are provided in good faith to assist local sites advocate for change and are not intended as an accreditation or auditing document.

Our team noted the following STRENGTHS of the service:



Staff reported pride for their service and the supportive relationships between local doctors and nursing staff. There were many positive reflections about the benefits of long term relationships built in a country setting, and how local GPs felt supported on call by their colleagues if needed in a paediatric emergency.

A new in situ simulation program is running monthly in the emergency department, with a mix of adult and paediatric cases. Staff reported this has been very helpful education, and built confidence in managing emergencies in general.

Issues with DRUG preparation, prescription and administration:



Phenytoin (20mg/kg over 20 mins) and Levetiracetam (60mg/kg over 5 minutes) could not be administered at the rate and dose currently recommended by Children's Health Queensland algorithms. Staff had to manually over-ride the software to administer Phenytoin at less than 60 minutes.

Suggested Actions: Liaise with pharmacy regarding pump profile updates
Action Status: **ACTION NEEDED**

Contact Person: regionalpharmacist@health.qld.gov.au

Issues with EQUIPMENT or LAYOUT of department:



A new paediatric resuscitation trolley had recently been purchased, but stock for intubation was limited. Neonatal HME filters and neonatal nasopharyngeal airways were not available, and would be helpful in the event of a neonatal resus.

Suggested Actions: Resus committee to consider purchasing neonatal HME filters and NPAs (see appendix for ordering codes)
Action Status: **ACTION NEEDED**

Contact Person: localnurseeducator@health.qld.gov.au

Barriers to accessing appropriate PROTOCOLS/ALGORITHMS/RESOURCES:

	Staff had no access to a computer in their resus bay, and instead relied upon a manilla folder containing print outs of common paediatric algorithms. Several were from previous file versions or prior publications and were significantly out of date. Access to paediatric resuscitation algorithms could be vital in an emergency, as such we suggest installation of a computer in resus or a version control process for printed algorithms.
Suggested Actions:	Action Status: ACTION NEEDED
Contact Person:	localemergencyphysician@health.qld.gov.au
Issues identified with SYSTEMS, PATHWAYS or TEAM RELATIONSHIPS:	
	Staff recognised that there were many supportive relationships within the hospital, but that paediatric intubations on the ward could become challenging. In particular, a lack of clarity regarding the safest place to intubate (theatre vs the ward vs emergency) and who should attend a medical emergency response call (anaesthetics vs paediatrics vs emergency) contributed to the confusion. Clarity regarding the medical escalation process in airway emergencies on the ward may be warranted.
Suggested Actions:	Resus committee assess current policy Action Status: ACTION NEEDED
Contact Person:	localemergencyphysician@health.qld.gov.au

In addition to the above, STORK believes your site may wish to consider the following resources:

Equipment codes:	IV Bag Spikes; Mothership 2-way connectors (Fluid Dispensing Connector);
Cognitive Aids:	Access to QPEC Guidelines;
Teaching Resources:	Open access simulation packs for use in inter-departmental simulations: https://www.childrens.health.qld.gov.au/chq/health-professionals/qld-paediatric-emergency-care/education/optimus-bonus/
Additional Courses:	Optimus PULSE;

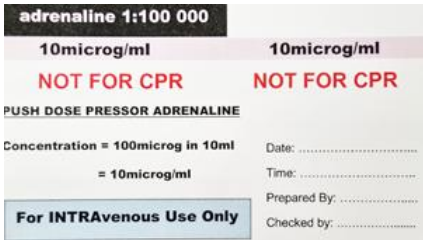
For further details, please contact your STORK Simulation Co-ordinator via stork.planning@health.qld.gov.au

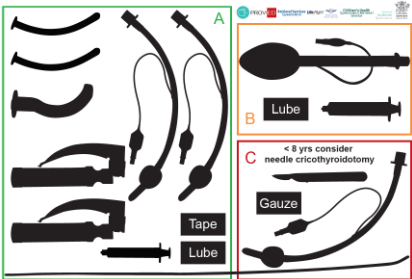
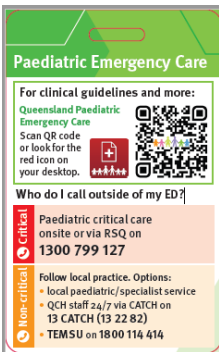
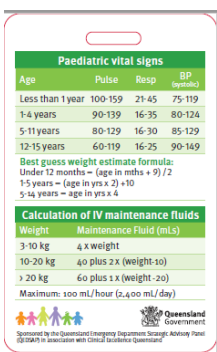
Appendix 1. Frequently Requested Resuscitation Aides

Resuscitation Role Stickers

Ordered from Mediprint.com.au via email: sales@mediprint.com.au

Role	Code	Description
DOCTOR	MC_LCCH007	Emergency Label - Doctor
AIRWAY DOCTOR	MC_LCCH009	Emergency Label - Airway Doctor
CIRCULATION DOCTOR	MC_LCCH002	Emergency Label – Circulation Doctor
PROCEDURE DOCTOR	MC_LCCH003	Emergency Label – Procedure Doctor
SURGICAL DOCTOR	MC_LCCH013	Emergency Label – Surgical Doctor
MEDICAL TEAM LEADER	MC_LCCH005	Emergency Label – Medical Team Leader
AIRWAY NURSE	MC_LCCH008	Emergency Label – Airway Nurse
CIRCULATION NURSE	MC_LCCH001	Emergency Label – Circulation Nurse
DRUG NURSE	MC_LCCH006	Emergency Label – Drug Nurse
NURSING TEAM LEADER	MC_LCCH010	Emergency Label – Nursing Team Leader
PROCEDURE NURSE	MC_LCCH004	Emergency Label – Procedure Nurse
NURSE	MC_LCCH011	Emergency Label – Nurse
SOCIAL WORKER	MC_LCCH015	Emergency Label – Social Worker
XRAY	MC_LCCH014	Emergency Label – X-Ray
CPR COACH	MC_LCCH030	Emergency Label – CPR Coach

Item	Description	Company	Order Code
FLUID DISPENSING CONNECTOR	CONNECTOR:FLUID:DISPENSING:BOX/100	S/4 HANA	10033158
	1:1 Syringe Connector for preparation of resuscitation drugs utilising the 'Mothership method' from CREDD book. Allows decanting of individual resuscitation doses of medication from a from a larger standardised concentration dose.		
PHENYTOIN FILTER	FILTER:SYRINGE:MINISART:0.2M:SARTORIUS	S/4 HANA	10032058
	0.22 micron filter for phenytoin infusion. Phenytoin is insoluble in water and can precipitate when mixed with other drugs or diluents. The use of a 0.22-micron filter helps remove any particles or debris ensuring that the medication is delivered safely and effectively.		
CREDD book		Children's Health Queensland	
	Standardised drug preparation guide for paediatric resuscitation and equipment sizing.	Available electronically free of charge via QPEC	To order physical copies please email stork@health.qld.gov.au
BAG SPIKES	Bag spike with smartsite, length 8.3cm, priming volume 0.47ml, DEHP free	S/4 HANA	10063289
	Allows for needle free withdrawal of multiple doses of fluid when preparing drugs		
Pre-Filled Medication Labels	Pre-Filled Labels	QHealth intranet policy	
	Drug specific medication labels for increased legibility and consistency with paediatric drug preparation. Paediatric drug preparation is a recognised source of increased cognitive load for resuscitation teams.	User-applied labelling requirements at QCH including governance of locally developed labels	Sites need to contact their Pharmacy for approval, who then need to contact the CHQ Medication Safety Committee CHQMedicationSafety@health.qld.gov.au

Item	Description	Company	Order Code
PROV-ED Airway Dropsheet	SSIP Pack	PROV-ED	
	An intubation drop sheet designed to standardise and simplify intubation tray preparation This dropsheet comes as a component of the PROV-ED 'Standardised and Safe Intubation Package'.		Email: PROVED.Project@health.qld.gov.au To request an SSIP (Standardised & Safe Intubation Package) be delivered to your service.
Team Brief Checklist		STORK	
	An effective team brief positively impacts team preparation and resuscitation. Based on publication by Purdy et al, this team briefing checklist aims to help standardise team briefings in the emergency department.	Available for free download via the following links: - A3 poster - A4 sheet	
Paediatric Lanyard Cards		Paediatric Essential Cards	
 	Provide normal range for different age groups, fluid calculation and best weight estimates and QR code links to clinical guidelines and retrieval contacts.		Email: Sally Smith Sally.smith@mcdonald.group

Paediatric Nasopharyngeal Airway		S4/HANA
	Size 3.0	AIRWAY:NASOPHARYNGEAL:ST:SU:4.7MM 10033825
	Size 3.5	AIRWAY:NASOPHARYNGEAL:ST:SU:5.3MM 10016928
	Size 4.0	AIRWAY:NASOPHARYNGEAL:ST:SU:6.0MM 10033826
ENFIT Nasogastric Tube		S4/HANA
	TUBE:FEED:NASOG:8FX80CM:SHT TERM:ENFIT/ Box 50	10052442
	8FR Short-term Nasogastric Tube. Used for gastric decompression and feeding	
ENFIT Syringe		S4/HANA
	SYRINGE:FEED:ENTERAL:ENFIT:SU:20ML	10051693
	20ml Purple Enteral Syringe to fit ENFIT NGT	
Small disposable manometers		S4/HANA
	Disposable manometer to measure ETT cuff pressure post intubation	10012105
Paediatric HME Filters		S4/HANA
	Decreased dead-space with built in ETT connection point	
	Neonatal HME 30-100mL TV	10033517
	Paediatric HME 75-300mL TV	10061939
Paediatric High Flow Nasal Prongs		S4/HANA
	Dolphin XXL Optiflow paed nasal prongs for High flow 10-50L flow	10060088