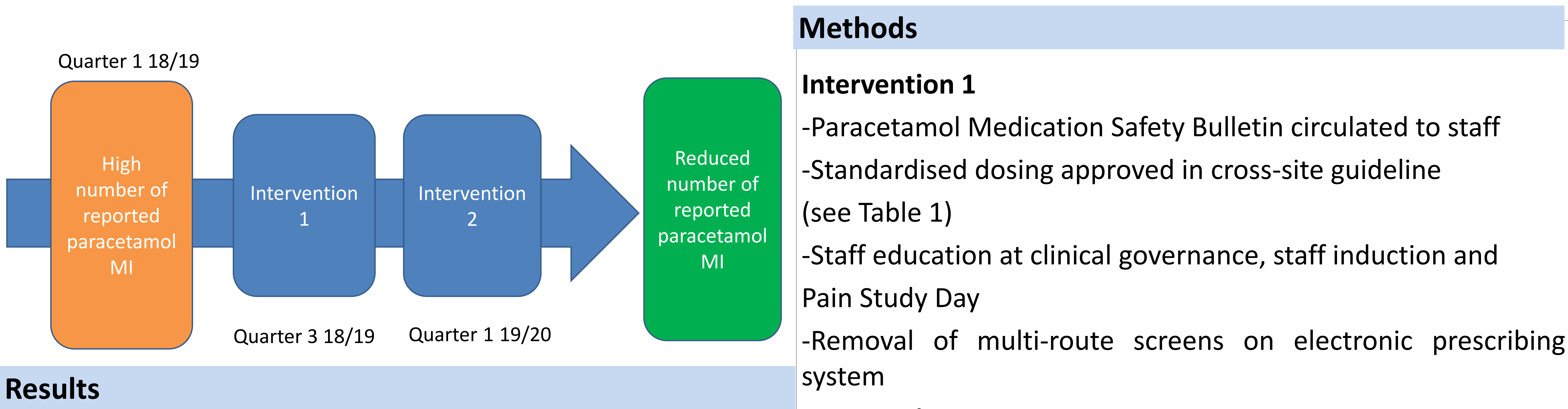


Introduction:

Paracetamol is one of the most commonly administered medicines to children. Accidental overdoses with intravenous paracetamol in children <10kg have been reported worldwide, including fatalities

High numbers of medication incidents (MI) involving paracetamol on CCH paediatric wards were reported. To reduce the level of harm the multidisciplinary team reviewed incident trends and implemented staged interventions



Results

Measures	Intervention 1	Intervention 2
Percentage reduction in reported MI involving paracetamol	75%	90%
Percentage reduction in MI reported with a level of harm	50%	100%
Level of harm reported	Low harm	-
Incident category		
Percentage reduction of reported oral dosing errors	100%	100%
Percentage reduction in the number of IV dosing errors for babies <10kg	50%	80%
Percentage reduction in duplication of doses	40%	100%

Table 1: Standardised CCH paracetamol dosing

Paracetamol Quick Reference Dosing Guide				
See full guidance for loading doses & further information on prescribing	Route:	Oral	Rectal**	Intravenous
<b>Prematurity</b> >32 weeks to 37 weeks CGA	Dose	See information in text below	See information in text below	See information in text below
<b>Birth (&gt;37 weeks) to 3 months</b> Corrected for prematurity (CGA).	Dose	15mg/kg***	15-20mg/kg***	10mg/kg (1ml solution per kg)
	Frequency	8 hours	8 hours	8 hours
	Maximum total daily dose	60mg/kg/day	60mg/kg/day	30mg/kg/day
<b>&gt; 3 months</b> Corrected for prematurity (CGA). <b>&lt; 10kg in weight</b>	Dose	15mg/kg	15-20mg/kg	10mg/kg (1ml solution per kg)
	Frequency	4-6 hours*	4-6 hours*	8 hours
	Maximum total daily dose	75mg/kg/day	75mg/kg/day	30mg/kg/day
<b>10-50kg</b>	Dose	15mg/kg	15-20mg/kg	15mg/kg (1.5 ml solution per kg)
	Frequency	4-6 hours*	4-6 hours*	4-6 hours*
	Maximum total daily dose	75mg/kg/day	75mg/kg/day	60mg/kg/day
<b>&gt;50kg</b>	Dose	1g	1g	1000mg (100 ml)
	Frequency	4-6 hours*	4-6 hours*	4-6 hours*
	Maximum total daily dose	4g 4 doses/day	4g 4 doses/day	4g**** 4 doses/day
Notes: The minimum interval between each administration must be at least four hours *The minimum interval between each administration in patients with severe renal insufficiency must be at least six hours **Dose should be rounded down to nearest whole suppository – do not cut. ***For children 1-3months corrected gestational age, higher doses may be used post operatively – see information below ****In patients >50Kg with hepatocellular insufficiency, chronic malnutrition or dehydration the maximum daily dose must not exceed 3g/day				

Table 2: IV quick guide dose and volume checks for nurses

Quick Reference* Intravenous Paracetamol 10mg/mL (100mL vial size)				
Dosing and Administration Guide 2 - 10 kg				
Weight	Dose (mg)	Volume (mL)	Frequency***	Maximum total daily dose****
1kg	See premature neonate dosing guideline			
2kg and > 37 weeks CGA	20	2	8 hours	30mg/kg/day
3kg	30	3	8 hours	30mg/kg/day
4kg	40	4	8 hours	30mg/kg/day
5kg	50	5	8 hours	30mg/kg/day
6kg	60	6	8 hours	30mg/kg/day
7kg	70	7	8 hours	30mg/kg/day
8kg	80	8	8 hours	30mg/kg/day
9kg	90	9	8 hours	30mg/kg/day
10kg	150	15	4-6 hours	60mg/kg/day