

# Emergency caesareans in Far North Queensland - decision to delivery interval across the years

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## Introduction

In theory, a short decision to delivery interval (DDI) may minimise intrauterine hypoxia and improve neonatal outcomes. Evidence suggests that a DDI for Category 1 caesareans of 30 minutes is “historical”. Time targets for Category 2 and Category 3 are less well evidenced.

## Aim

To assess the DDI and cord gases for all emergency caesareans over a six month period at Cairns Hospital, QLD Australia, and to compare this with previous years.

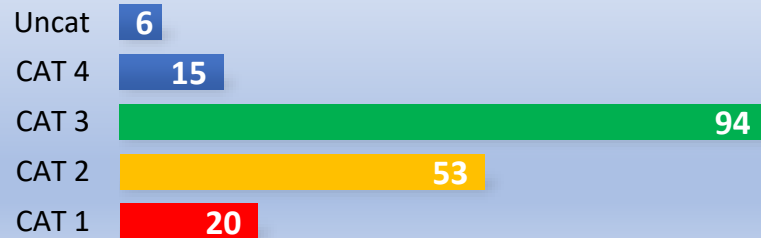
## Methods

Data from all emergency caesareans was prospectively collected on pre-printed audit forms weekly over 6 months from July 2020 – Dec 2020. Previous audit results from 2011, 2013 and 2018 were used to compare outcomes.

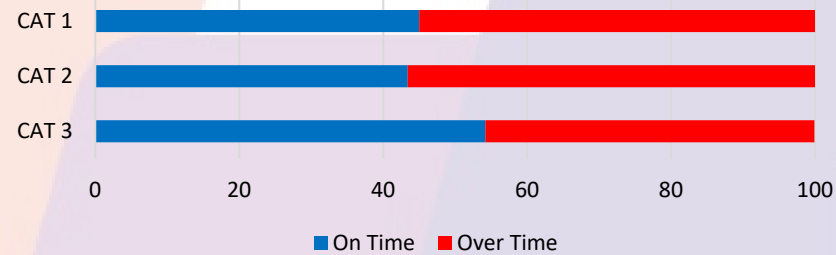
## Results

167 of 188 emergency caesareans were included in analysis (CAT 4 and uncatagorised excluded).

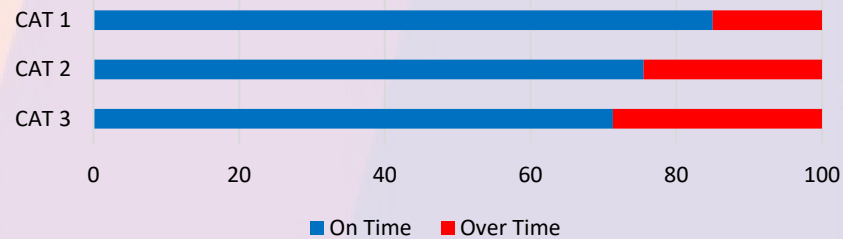
## Distribution of Emergency Caesareans



## Delivery Time - % of Meeting Target Times



## Transfer Time - % of Meeting Target Times



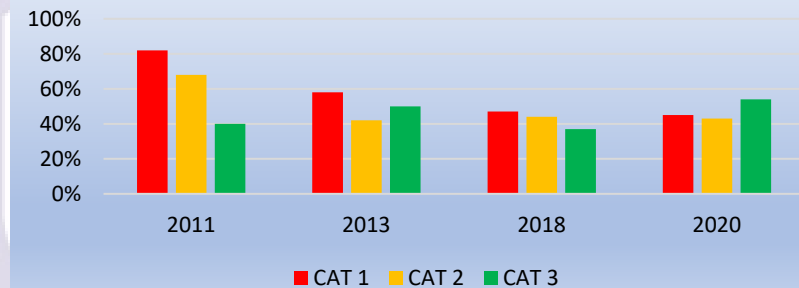
## WHEN ARE WE NOT MEETING TARGET TIMES?

CAT 1	
<b>Transfer</b> 16.7% of in-hours 14.3% of after hours	<b>Delivery</b> 66.7% of in-hours 50.0% of after hours
CAT 2	
<b>Transfer</b> 27.8% of in-hours 22.9% of after hours	<b>Delivery</b> 66.7% of in-hours 51.4% of after hours
CAT 3	
<b>Transfer</b> 28.1% of in-hours 29.0% of after-hours	<b>Delivery</b> 53.1% of in-hours 41.9% of after hours

No correlation of arterial pH, venous pH or lactate to DDI was ascertained in any of the three categories.

Specific reason for delay	CAT 1	CAT 2	CAT 3
Difficult anaesthetics	1	4	8
Surgical difficulty	-	1	1
Theatre unavailability	-	5	8
Other	1	3	4

## Deliveries within target time - comparison to previous years



## Discussion

There has been no significant improvement in DDI over the years. Additionally, there is no clear association between DDI and short term neonatal outcomes (pH or lactate). In Cairns, with onsite 24 hour theatre staff, an emergency caesarean section occurring after hours slightly improves DDI targets.

Ongoing DDI audits enables us to recognise our efficiency in getting our patients to theatre, and to re-evaluate our emergency CS process, categorisation, outcomes and areas to improve to prevent unnecessary delays.