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# **Launch of ViCTOR Statewide Paediatric Fluid Management Chart and educational video**

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# ViCTOR Fluid Management Charts Project

VPCN FLUIDS FORUM  
2<sup>nd</sup> August, 2018

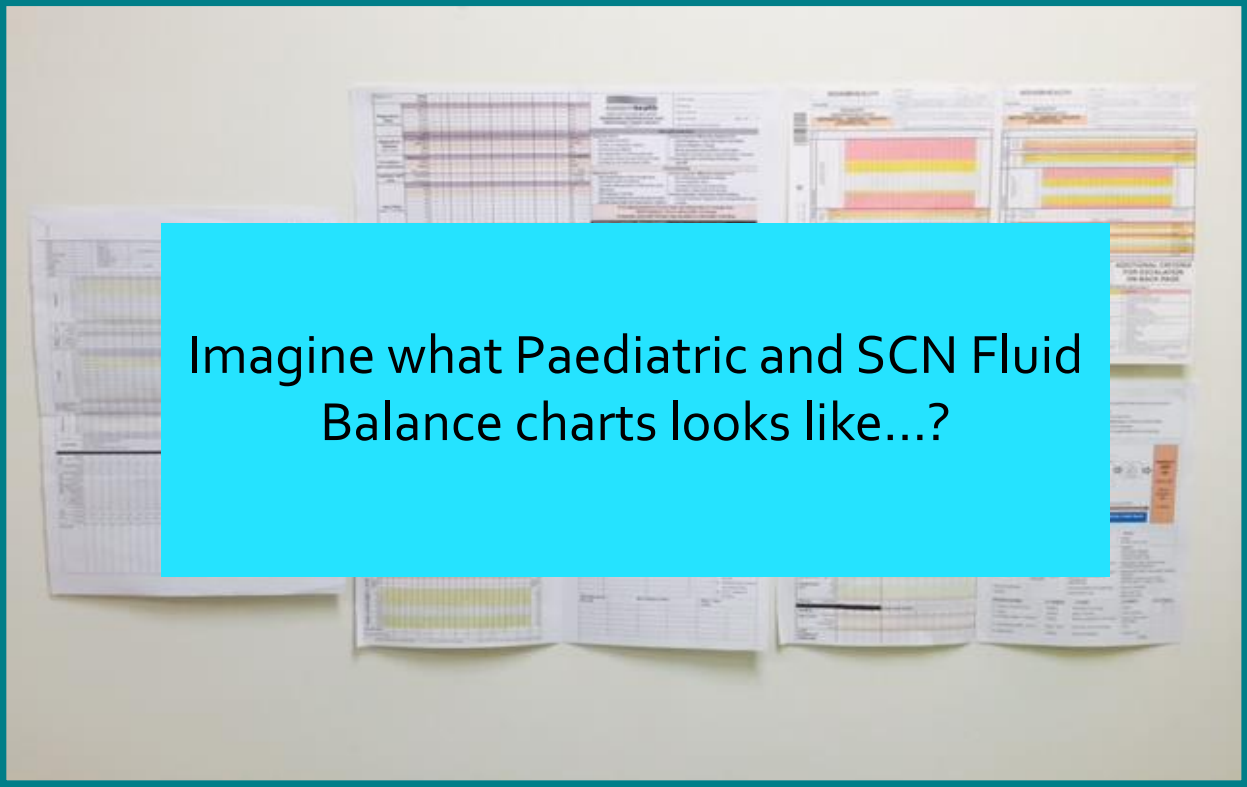
Jen Sloane RN. MPH  
Katie Carradice RN

# QLD Coronial Inquest into the death of: **Summer Alice STEER**

*Re-design their 24 Hour Fluid Balance Charts and introduce protocols to ensure:*

- ✓ *That it is clear where vomit and blood should be recorded.*
- ✓ *To standardise the way in which loss of blood is described (in relation to volume, consistency and colour).*
- ✓ *The form should include the patient's weight.*
- ✓ *A formula for calculating circulating volume.*

# VARIATION IN OBSERVATION PRACTICE Then (2012) ...and again...(2016)



Imagine what Paediatric and SCN Fluid Balance charts looks like...?



# SCN Survey Responses



17  
responses



16 are SCN  
specific chart  
(94%)



3 measured charts  
for accuracy in the  
last 6 month



Clinical indicators:

Once admitted n = 15

Only for IV n = 3

Certain medical condition n = 0

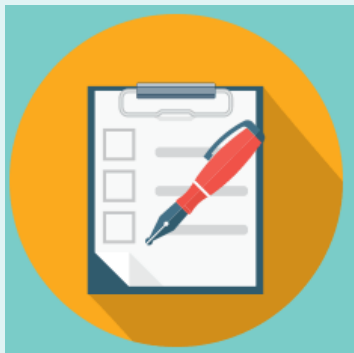
No particular reason n = 0

Other = 4

*(previous charts were an all-in-one with  
observations pre ViCTOR)*

# What's happening in Victoria?

## Paediatric Survey Responses



18  
responses



6 are  
paediatric  
specific  
chart (33%)



1 measured  
chart for  
accuracy in  
the last 6  
month



### Clinical indicators:

Once admitted n = 6

**Only for IV n = 11**

**Certain medical condition n = 11**

No particular reason n = 0

Other = 12 *BF, Bottle fed, < 1, < 2 (n = 3), med staff req, pre post op, no governance, no indicators*

## ViCTOR Fluid Balance Chart 2017/2018 Timeline

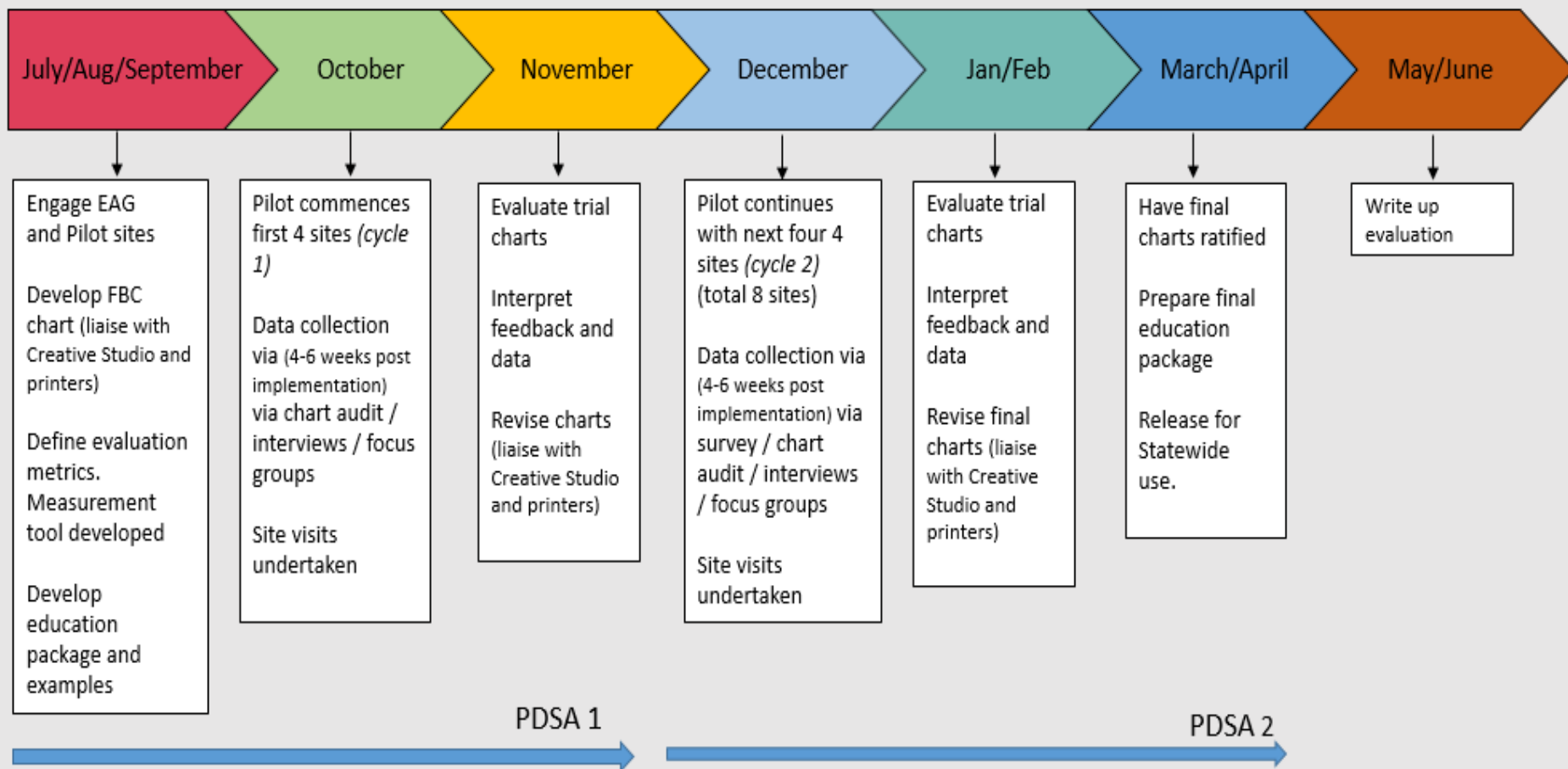






Chart  
Inclusions  
(in addition  
to the  
coroners  
reqs)

4 sites went into the  
piloted the fist cycle  
charts Nov 17 – Jan 18

# Cycle One Summary Results

**4 x hospitals, n = 58 clinicians**

(comprising 55 x RNs, 2 x medical staff, 1 x student RN) (representing 17 x SCN staff, 41 x Paeds/ED staff)

## What's working

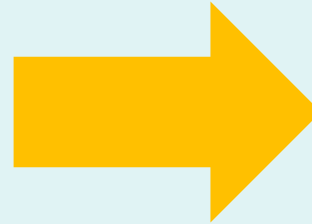
1. Colour differentiation
2. 28 rows (extra rows).
3. All in one chart (IV orders and documentation).
4. TFIs appear to have more awareness, especially in SCN
5. Midday to Midday Balance.

## What's 'NOT' working

1. Hourly versus Progressive balance.  
Hourly balance considered confusing
2. Rarely was the chart used to its full capacity
3. Who needed a Fluid Assessment Chart
4. Fluid plan and documentation needs of the SCN patient versus Paediatric Patient
5. Areas on the chart remain unclear, especially TFI in paed

# Key changes for Cycle 2 chart

- ✓ Focus on progressive totalling
- ✓ More detail re: TFI with distinguished Neonatal and Paediatric TFI ordering areas
- ✓ Change in title to 'Fluid Management' from 'Fluid Assessment'
- ✓ increased to 6 pages
- ✓ All patient groups remain on one chart
- ✓ SCN *'taking it for the team'*



All 9 sites commenced  
on new chart for cycle 2  
Jan – May 2018

Victorian Children's Tool for Observation Response (VICTOR) is a paediatric sector-led project supported by:

Monash  
Children's  
Hospital

SCV  
Safer Care  
Victoria

The Royal  
Children's  
Hospital  
Melbourne

# Cycle Two Summary Result

## SCN

### What's working

1. IV orders on the chart (all-in-one)
2. TFI & Birth details at the front
3. Standardising codes/colours for input & output
4. NGT change / details area
5. Use in the sick neonate

***Midday to Midday Balance 40% (prefer)***

### What's 'NOT' working

1. Too much irrelevant information
2. Not enough space to describe behaviour, feeding and cares
3. Layout is confusing / over the top
4. Medical staff not completing TFI / new order
5. Enteral orders confusing / redundant
6. Neonatal scores / codes not on chart

# Cycle Two Summary Results

## PAEDIATRICS

### What's working

1. TFI, 4,2,1 rule and maintenance rates table\*
2. IV orders on the chart\*
3. Use of colours
4. Layout, including hourly balance\*
5. Working well in sick kid

***Midday to midday balance = 60%***

*(\* except tertiary)*

### What's 'NOT' working

1. TFI knowledge not clear therefore low completion rates
2. Chasing medical staff at midday for orders (particularly non-paeds teams)
3. Too complex for the majority of patients
4. Description area missing in IV section
5. Enteral orders limited for rate changes, additional feeds and ongoing feeds
6. Size
7. Poor use of fluid management instructions

## Incidental findings C1:

- Medications being written on Enteral orders chart *e.g. Colonlytely*
- Number output descriptions missing (SCN)
- Variety of blood transfusion forms which are primarily adult focused
- Flush quantities – no standardised practice
- TFI in ED versus the ward (role)
- Amount of education required

## Incidental findings C2:

- Normal Saline flushes where are these documented?
- Passion of SCN staff towards fluids
- Amount of education *still* required

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## Final Charts

[illegible][illegible][illegible]

| Paediatric Intravenous Fluid Types  |   |                        |
|---|---|------------------------|
| Refer to Standard Clinical Practice Guidelines "Intravenous Fluid" for fluid type calculation and monitoring guidance on the Top Right Children's Hospital website ( <a href="http://www.chh.org.au">www.chh.org.au</a> ). Be sure to consider maintenance, dextrose, glucose and electrolyte concentrations. |   |                        |
| Fluid Type  | Uses  |                        |
| Sodium Chloride 0.9%  | For initial boluses                                       |                        |
| Sodium Chloride 0.9% and Glucose 5% (w/v) - Standard, Potassium Chloride 2%   | For maintenance hydration                                 |                        |
| Plasma-Lite 10% and Glucose 7% (standard Normal), Potassium Chloride  | For neonates, infants with renal/consultation Paediatrics |                        |
| The above fluids are suitable for replacement of deficit and/or replacement of losses.  |   |                        |
| Paediatric Maintenance IV Rates   |   |                        |
| The guideline should be used as a starting point and will need to be adjusted in ALL unwell children.   |   |                        |
| Generally 27ml/kg/hr should be used as a guide. Dextrose solutions are administered. This is because they are likely to be isotonic and dextrose becomes 10% in all weight age kids.  |   |                        |
| Children with renal or other acute 27ml/kg/hr may require adjusted fluid restriction - seek medical advice.   |   |                        |
| For calculations of dextrose, refer to Standard Clinical Practice Guidelines "Dextrose" for further advice.   |   |                        |
| Weight (kg)   | Full maintenance (ml /hr)                                 | 27 maintenance (ml/hr) |
| 3   | 12  | 8                      |
| 4   | 16  | 11                     |
| 5   | 20  | 13                     |
| 6   | 24  | 16                     |
| 7   | 28  | 19                     |
| 8   | 32  | 21                     |
| 9   | 36  | 24                     |
| 10  | 40  | 27                     |
| 12  | 48  | 29                     |
| 14  | 56  | 33                     |
| 16  | 64  | 37                     |
| 18  | 72  | 41                     |
| 20  | 80  | 45                     |
| 22  | 88  | 49                     |
| 24  | 96  | 53                     |
| 26  | 104   | 57                     |
| 28  | 112   | 61                     |
| 30  | 120   | 65                     |
| 32  | 128   | 69                     |
| 34  | 136   | 73                     |
| 36  | 144   | 77                     |
| 38  | 152   | 81                     |
| 40  | 160   | 85                     |
| 42  | 168   | 89                     |
| 44  | 176   | 93                     |
| 46  | 184   | 97                     |
| 48  | 192   | 101                    |
| 50  | 200   | 105                    |
| 52  | 208   | 109                    |
| 54  | 216   | 113                    |
| 56  | 224   | 117                    |
| 58  | 232   | 121                    |
| 60  | 240   | 125                    |
| 62  | 248   | 129                    |
| 64  | 256   | 133                    |
| 66  | 264   | 137                    |
| 68  | 272   | 141                    |
| 70  | 280   | 145                    |
| 72  | 288   | 149                    |
| 74  | 296   | 153                    |
| 76  | 304   | 157                    |
| 78  | 312   | 161                    |
| 80  | 320   | 165                    |
| 82  | 328   | 169                    |
| 84  | 336   | 173                    |
| 86  | 344   | 177                    |
| 88  | 352   | 181                    |
| 90  | 360   | 185                    |
| 92  | 368   | 189                    |
| 94  | 376   | 193                    |
| 96  | 384   | 197                    |
| 98  | 392   | 201                    |
| 100   | 400   | 205                    |
| 102   | 408   | 209                    |
| 104   | 416   | 213                    |
| 106   | 424   | 217                    |
| 108   | 432   | 221                    |
| 110   | 440   | 225                    |
| 112   | 448   | 229                    |
| 114   | 456   | 233                    |
| 116   | 464   | 237                    |
| 118   | 472   | 241                    |
| 120   | 480   | 245                    |
| 122   | 488   | 249                    |
| 124   | 496   | 253                    |
| 126   | 504   | 257                    |
| 128   | 512   | 261                    |
| 130   | 520   | 265                    |
| 132   | 528   | 269                    |
| 134   | 536   | 273                    |
| 136   | 544   | 277                    |
| 138   | 552   | 281                    |
| 140   | 560   | 285                    |
| 142   | 568   | 289                    |
| 144   | 576   | 293                    |
| 146   | 584   | 297                    |
| 148   | 592   | 301                    |
| 150   | 600   | 305                    |
| 152   | 608   | 309                    |
| 154   | 616   | 313                    |
| 156   | 624   | 317                    |
| 158   | 632   | 321                    |
| 160   | 640   | 325                    |
| 162   | 648   | 329                    |
| 164   | 656   | 333                    |
| 166   | 664   | 337                    |
| 168   | 672   | 341                    |
| 170   | 680   | 345                    |
| 172   | 688   | 349                    |
| 174   | 696   | 353                    |
| 176   | 704   | 357                    |
| 178   | 712   | 361                    |
| 180   | 720   | 365                    |
| 182   | 728   | 369                    |
| 184   | 736   | 373                    |
| 186   | 744   | 377                    |
| 188   | 752   | 381                    |
| 190   | 760   | 385                    |
| 192   | 768   | 389                    |
| 194   | 776   | 393                    |
| 196   | 784   | 397                    |
| 198   | 792   | 401                    |
| 200   | 800   | 405                    |
| 202   | 808   | 409                    |
| 204   | 816   | 413                    |
| 206   | 824   | 417                    |
| 208   | 832   | 421                    |
|   |   |                        |



# Fluid Management Video

w.victor.org.au/victor-in-action/

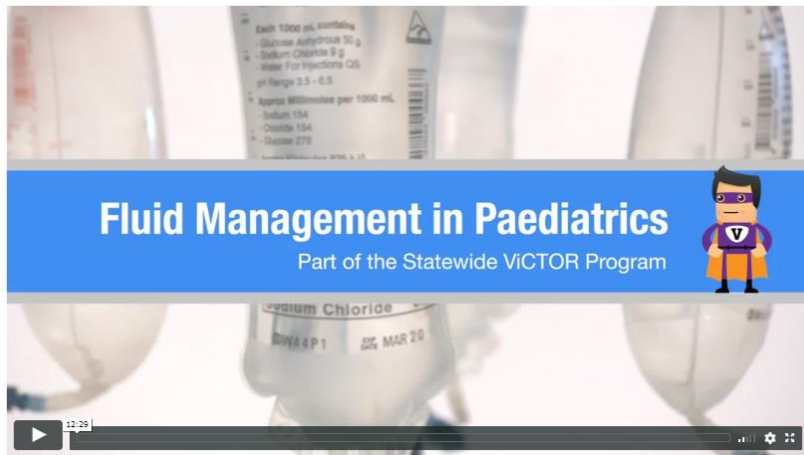
## ViCTOR

Victorian Children's Tool for Observation and Response (ViCTOR)

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### ViCTOR in Action (including fluids)

#### Fluid Management in Paediatric Inpatients



## Registration

## ViCTOR

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### Register

Thanks for your interest in the ViCTOR package

To start using ViCTOR you will need to fill in the registration form below. You will need to understand and agree to the disclaimer. Once you have submitted the form you will be sent an email with the complete ViCTOR package.

**Name \***

**Organisation \***

**Role/Position \***

**Phone \***

**Your email address \***

**Intended ViCTOR start date:**



# THE END

