Abstracts

G375

GET SET FOR LABOUR WARD. OPTIMISING TEMPERATURE MANAGEMENT IN PRETERM INFANTS (<32 WEEKS GESTATION)

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Aim
To design and implement a quality improvement project to optimise normothermia (36.5°C–37.5°C) in preterm infants on admission to neonatal intensive care (NICU).

Methods
A prospective audit of admission temperatures over a 12 month period from 01/01/2016 to 31/12/2016 revealed 25 (31%) infants<32 weeks gestation were hypothermic on admission despite routine use of plastic bags and radiant heat. A bundle of evidence based processes was compiled. These were based on NLS guidance of optimal environmental temperature, use of warmed mattresses, plastic wrapping, warmed incubators and warmed humidified gases. Also included was the American Academy of Paediatric guidance on the use continuous temperature monitoring at resuscitation. The bundle: 'Get Saturation Ecg Temperature for labour ward' was implemented following staff education, including advice on improving temperature if low on monitoring during stabilisation. A Lifestart trolley was used to deliver stabilisation with the cord intact for 60 s and monitoring was with Philips XDS monitors. Compliance with the number of process measures were recorded by questionnaire following each delivery and admission axillary temperature recorded.

Results
Since implementation of Get SET in June 2017, 32 preterm infants<32 weeks have been admitted to NICU. 26 (81%) were normothermic, 4 (13%) were hypothermic and 2 (6%) were hyperthermic. 75% of the hypothermic infants had an admission temperature >36°C and no infant had an admission temperature <35.9°C (table 1). Bundle compliance was not followed in 3 out of the 4 cases of hypothermic admissions, the remaining case was a prolonged breech delivery. Bundle compliance overall was 82%.

Conclusion
Quality improvement measures implemented to actively monitor and maintain temperatures in the normothermic range during stabilisation increased the proportion of preterm infants admitted with temperatures in the optimal range.

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<table>
<thead>
<tr>
<th>Temperature range</th>
<th>Pre Get SET project</th>
<th>Post Get SET project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of babies</td>
<td>Number of babies</td>
</tr>
<tr>
<td>&lt;35°C</td>
<td>1 (1%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>35.1°C–35.5°C</td>
<td>1 (1%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>35.6°C–36°C</td>
<td>7 (9%)</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>36.1°C–36.4°C</td>
<td>16 (20%)</td>
<td>3 (9%)</td>
</tr>
</tbody>
</table>

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REDUCING PRESCRIBING ERRORS: MAKING ELECTRONIC PRESCRIBING WORK FOR OUR CHILDREN WITH CYSTIC FIBROSIS, WITH MULTI-DISCIPLINE COLLABORATION

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Aims
We noted a pattern of multiple prescribing errors for cystic fibrosis (CF) inpatients, a high-risk group where polypharmacy is unavoidable. Errors persisted despite the introduction of electronic prescribing (EP) in our Children’s hospital in 2016, and a subsequent CF prescribing care set. EP is often seen by clinicians as a fixed unalterable system contributing to rather than ameliorating errors. We wanted to demonstrate increased use of the care set alongside an expected reduction in prescribing errors, through a process of multi-disciplinary quality improvement in liaison with EP programmers.

Methods
We met monthly, process mapping how the team interacts with our EP system. Sequential Plan-Do-Study-Act cycles were carried out and functionality added and optimised so they were used reliably, including care sets, automatic admission notification and judicious pop-up alerts. The National Coordinating Council for Medication Error Reporting and Prevention score (NCC MERP) was used to categorise error severity (A-I).

Results
In total, 20 patients (320 medication orders) were evaluated. The most common prescribing errors were: omission of a regular medicine (27%), wrong formulation (19%) and wrong dose (14%). One third of prescriptions with error (s) were non-CF specific drugs that could not be prescribed using the care set. These errors would require different error reduction strategies to be tested and were excluded from further analysis.

Through our interventions, we demonstrated increased utilisation of the CF care set, from 42% to 70%, alongside a reduction in prescriptions with ≥1 error, from 43% to 27%. The highest severity category seen in this study (D: errors that required intervention to preclude harm, or extra monitoring) was reduced from 27% to 15%.

Conclusion
It is important to recognise that clinical teams can significantly reduce medication errors, and their severity, by working closely with EP programmers to change and adapt EP functions, and evaluate their subsequent utilisation and efficacy.