**Appropriate identification of children at nutritional risk; Development of “Measure, Plot, Think, Act” approach to nutritional care in acute paediatrics**

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### Aim

*Improve the identification of children at nutritional risk and implement appropriate management plans*

<table>
<thead>
<tr>
<th>Driver Diagram:*change ideas actioned</th>
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<tbody>
<tr>
<td><strong>Aim</strong></td>
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<tr>
<td>Identify those at risk * &quot;Measure &amp; Plot&quot; who are overweight/obese * &amp; implement appropriate management plan</td>
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<tr>
<td>Knowledge</td>
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<tr>
<td>Flag abnormal</td>
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<tr>
<td>Implement ongoing management * &quot;Think &amp; Act&quot;</td>
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<td>Discharge diagnosis</td>
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### Why is it important?

- Under- and over-weight children have higher rates of morbidity and mortality
- Many factors influence nutrition risk; nutrition & disease state, requirement and intake
- No gold standard screening
- Important to develop robust process which embeds nutritional assessment into routine care to ensure malnourished or children at risk are identified and management plans are implemented

### The Multi - Disciplinary Team

- Doctors, general and specialist consultants & junior trainees
- Nurses, matrons, specialist nurses & ward nurses
- Dietitians
- Paediatric Nursing Education Team
- Paediatric and Trust Nutrition & Hydration Steering Group
- IT department & data analysis team

### Measure & Plot;

- **Teaching & awareness**
  - 6 focus groups held within nursing, health care assistant (HCAs), junior doctor and dietician teaching / weekly meetings: established current confidence in anthropometry, varying practices and ideas for improvement
- **Incorporated anthropometry teaching into monthly nurses and health care assistants statutory training days & newly qualified nurses induction, 3 sessions held, 15-25 attend each, received good feedback e.g.
  - “Really good information and now have an understanding of use for height”
  - “Really useful to understand when to think about measuring nutrition with families. Everyone has a responsibility”
- **Good to highlight the importance of correct measurements and how to approach difficult conversations.**
- **Presented at Nutrition & Hydration Group Steering meetings, departmental grand rounds & quality meeting.**
- **Ran Junior doctor teaching in department and also regional training day to discuss in broader context and share work.**
- **Posters on equipment & in staff rooms; importance of height**
- **Work with IT;**
  - Enter height onto SAFERack (electronic observation charts)
  - Automatically pull weights and height from SAFERack onto electronic growth charts
- **Significant improvement in recording anthropometry, shown in SPC charts**

### Next Steps

- **Measure & Plot:**
  - Develop competency document and quality assurance for anthropometry & roll out through formalised teaching led by Specialist Nutrition Nurse & dietitian
  - On going work with IT through Nutrition & Hydration Steering Group; heights to pull onto growth charts, syndrome specific charts & team specific features e.g. renal & intensive care
  - **Think & Act:**
    - **PhD application for future work and development of care pathway**

### Lessons Learnt

- Integrating IT systems in a big organisation takes time – find the right people early!
- Use this opportunity to reflect on your own clinical practice
- Don’t bite off more than you can chew!
- Talk about your project at every opportunity - practice will change just by raising awareness
- Supportive supervisors who share your vision are essential

### Thank you to

 Prof Beale, Dr Hyde, Dr Williams, Dr Marina, Dr Johnson & Dr Ashton for all their support and encouragement
- Florencia Beraa for all her help to capture my data & David Cable and University Hospital Southampton’s IT department
- NIHR BRC grant to attend qualitative analysis & focus group courses
- All the staff involved in my qualitative interviews and everyone at Southampton Children’s Hospital
- My fellow QI Fellows

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**Framework analysis of interviews**

**Thematic interpretation of staffs thought processes when assessing a child with abnormal BMI**

**Key: Attitudes Behaviours Barriers Facilitators**

**Healthcare professionals, senior nursing / midwifery and health care assistants (HCAs)**

- Motivational interviewing
- Active health promotion by organisation

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