Protected Mealtimes
(or Assisted Mealtimes?)

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Mealtime care and poor intake

“Common”

- Interruptions:
  - 20-40% of meals interrupted\(^1-^4\)
    - 50% by nurses, 20% doctors
  - Study in 1991 (n=242)\(^5\)
    - More patients ate poorly when interrupted (34% vs. 17%)
    - Only affected those with poor appetite

- Inadequate assistance:
  - 15-20%\(^2,^3,^6\)
  - Higher plate waste (77% vs 15%, no \(p\) value)\(^6\)

Complex:

- Competing priorities, diffusion of responsibility, perception of roles\(^7\) etc.

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\(^1\) Xia & McCutcheon 2006, \(^2\) Hickson 2011, \(^3\) Huxtable 2013, \(^4\) Young 2012, \(^5\) Deutekom 1991, \(^6\) Tsang 2008, \(^7\) Ross 2011
Dedicated feeding assistant

• Healthcare assistant (n=592)\(^1\)
  – No clinical or nutritional benefits
  – ? Implementation
• Dietetic assistant (n=318)\(^2\)
  – +1400kJ/d, reduced mortality post-op + 4/12
  – Focus on supplement intake
• AIN (n=256)\(^3\)
  – Increased adequacy of intake (21% vs 8%)
• Volunteer programs
  – limited evaluation\(^4\)

Protected Mealtimes

– Implemented in 5% of wards\(^5\)
– No change in intake, interruptions or assistance\(^6,7\)
  • Except on pilot ward\(^7\)
– Improved intake with “assistance” focus, despite no change in interruptions\(^3\)

Protecting vs assisting?

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\(^{1}\) Hickson 2004, \(^{2}\) Duncan 2006, \(^{3}\) Young 2012, \(^{4}\) Green 2011, \(^{5}\) Agarwal 2010, \(^{6}\) Hickson 2011, \(^{7}\) Huxtable 2013
The EAT mealtime study

• Aimed to examine and compare mealtime practices and nutritional intake of patients across four units at RBWH
  – Medical
  – Oncology
  – Orthopaedics
  – Vascular surgery

• Data to be published soon…
Methods

• Systematic meal observations (n=699)
  – 2 of each meal
  – 2 observers (dietitian ± nurse)
  – Same methods & observers across all wards
  – Ward nurses unaware
  – Exclude NBM, palliative

• Before meal
  – Positioning
    • Asleep, lying, sitting

• During meal
  – Assistance
    • When, who
  – Interruptions

• After meal
  – Intake of meal
    (0, 25, 50, 75, 100%)
- 47% of patients ate \leq 50% of their meal
- No difference in intake between wards \( (p=0.751) \)
• Most interruptions by nurses, except in vascular (dr rounds)
• Meal positioning
  – 33% of patients were lying bed when meal was delivered
  – Poor positioning highest in oncology (57%), lowest in vascular (7%)
Mealtime assistance (40%)

- Varied acc meals: bf (47%), lunch (77%), dinner (67%)
- Most assistance from nurses (50%), visitors (bf 5%, lunch 38%, dinner 24%), AINs (5%), DAs (2%)
Relationship between positioning and intake

- Lying
  - Good intake (≥75% of meal)
  - Poor intake (≤50% of meal)

- Sitting
  - Good intake (≥75% of meal)
  - Poor intake (≤50% of meal)

$p<0.001$
Relationship between assistance and intake

- Timely assistance
- Delayed assistance
- No assistance

- Good intake (≥75% of meal)
- Poor intake (≤50% of meal)

\[ p = 0.001 \]
Relationship between interruptions and intake

$p=0.316$

- **Interruptions**
  - Good intake (≥75% of meal)
  - Poor intake (≤50% of meal)

- **No interruptions**
  - Good intake (≥75% of meal)
  - Poor intake (≤50% of meal)
In summary…

- Confirms poor intake of hospital patients
  - Across all wards, across all meals
  - High numbers of patients who ate nothing

- Mealtime assistance levels vary across wards?
  - Culture?
  - Staffing?
  - Patient

- Receiving assistance when it is needed is associated with better food intake

- Mealtime interruptions are common and context-specific
  - But may not affect intake?
What does this mean?

• Just “protecting” the mealtime may not improve nutritional intake

• “Assisted mealtimes” focus may produce better results
  – Collaborative
  – Comprehensive ax of problem
  – Multifaceted solutions
  – Assistant workforce to support (not replace) nurses
  – Modelling by dietitians and other champions
  – Time, persistence
What about Red Trays?

• Suggested as a solution to hospital malnutrition in 2003\(^1\)
  – Campaign endorsed by RCN
  – Widespread implementation through the UK
  – No evaluation of impact on outcomes
  – Mixed commentary from within the nursing profession
    • “Erode essential nursing skills”
    • Band aid solution

\(^1\)Bradley & Rees 2003, photo: gvhealth.org.au
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