Leeds Institute of Health Sciences

UNIVERSITY OF LEEDS

# Will real-time ward management systems transform quality and safety?

**Emma Ferguson[1], Justin Keen[1], Rebecca Randell[1], Andrew Long[1], Nyantara Wickramasekera[2], Elizabeth McGuiness[1], Claire Ginn[3], Sean Willis[4] and Jackie Whittle[4]**

**University of Leeds [1], University of Sheffield [2], NHS England [3], Leeds Teaching Hospitals NHS Trust [4]**

UNIVERSITY OF LEEDS

# ‘Information Systems: Monitoring and Managing from Ward to Board’

**Funding Acknowledgement:**
This project was funded by the National Institute for Health Research HS&DR programme (project 13/07/68)

**Department of Health Disclaimer:**
The views and opinions expressed therein are those of the authors and do not necessarily reflect those of the HS&DR programme, NIHR, NHS or the Department of Health

UNIVERSITY OF LEEDS

- **The second Francis report (2013):**

***"All healthcare provider organisations, in conjunction with their healthcare professionals, should develop and maintain systems which give them: effective real-time information on the performance of each of their services against patient safety and minimum quality standards"***

- **Personalised Health and Care 2020**

- **How are Trusts going to implement real-time systems?**

# Research Question

UNIVERSITY OF LEEDS

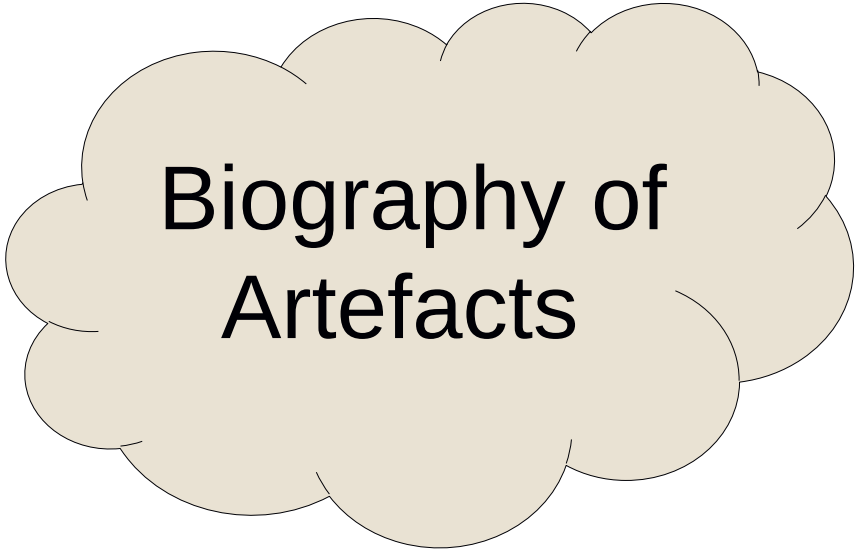
**Are nurses able to integrate real-time ward management systems into their working practices, to monitor and improve quality and safety of care?**

UNIVERSITY OF LEEDS

- **4 NHS acute Trusts**
- **Total of 8 wards – one medical and one surgical in each Trust**
- **Methods included:**
  - **Observations of use of electronic whiteboards/devices**
  - **Observations of daily clinical practices (handovers, multi-disciplinary team meetings) (*72 hours*)**
  - **Interviews with information and informatics staff (*n = 23*)**
  - **Semi-structured interviews with ward staff (*n = 34*)**
- **Accounts of information systems and ward practices between 2013-2016**

**Chronological narrative**

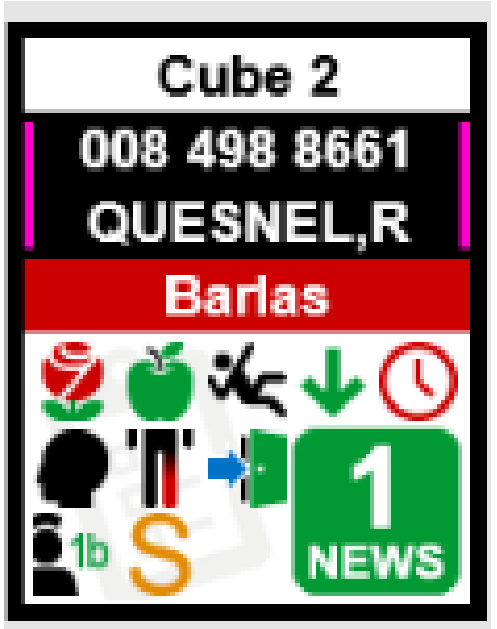
**Focuses on changes over time**




**Look at the background - why systems look the way they do**

**Previous studies don't understand the complexity of large scale IT infrastructures**

# Electronic Whiteboards

# Electronic Whiteboards

UNIVERSITY OF LEEDS

| Bed | Patient | Age | Consultant | Specialty | LOS | EDD | TP | Discharge | Needed For Discharge | Clinical Summary | eDAN | eMeds | Jobs | CR | AR | Abs | Pain | DAS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ed | | | | | | | | | | | | | | | | | | |
| | **BLUEBERRY** Nadia | 114y | GS | Trauma and Orthopaedics | 39d | 18-Aug-2015 | | ? | | | BSp | | | | | ✓ | | ? |
| | **NECTARINE** Munawar | 110y | DT | Plastic Surgery | 34d | | | ? | | | BSp | | | | | ? | | NA |
| | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | **OLIVE** Murtaza | 130y | ASR | Spinal Surgery | 38d | 06-Aug-2015 | | ? | | 0/00 aaaaaaaaa aaaaaaa aaaaa... | BSp | | | | | ✓ | | NA |
| 3 | **KIWI** Regina | 110y | CF | Plastic Surgery | 37d | 06-Aug-2015 | | ? | | aaaaaaaaaaaa aaaaaaaaaaaa aa... | BSp | | | | | ! | | NA |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | **PUMPKIN** Jai | 114y | RAD | Spinal Surgery | 35d | 09-Aug-2015 | | ? | | aaaaaa aaaaaaa | BSp | | | | | ? | | NA |
| 6 | **CORN** Faiza | 132y | PAM | Spinal Surgery | 37d | 05-Aug-2015 | | ? | | aaaaaaaa aaaaaaaa a0 aaaaaaa... | BSp | | aaaaaa aaaaa aaaaaa | | | ✓ | | NA |

UNIVERSITY OF LEEDS

- **Local motivations – wards moving from paper**
- **In-house informatics expertise – strong relationship between informatics and ward teams**
- ***"When the system came they were trained within a week, they all hated it because it was electronic, after then they actually engaged with it and used it. Then it was a novelty, for two weeks they really wanted it, really enjoyed it, and then after that it was the norm, it was what they used."***

# Mobile devices

UNIVERSITY OF LEEDS

Wait there's more…

UNIVERSITY OF LEEDS

# To conclude – the '*so what*' point?

UNIVERSITY OF LEEDS

- **Substantial changes since the second Francis report (2013)**
- **Unlike any previous IT systems**
- **Real time ward management systems  designed by nurses for nurses**
- **Massive potential in data warehouses**

**Thank you for listening – Any questions?**