University Hospitals of Leicester NHS
NHS Trust

Clinical Handover:

Breaking Down Communication Barriers that Threaten Patient Safety and Impede Clinical Accountability at Handover

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PROBLEM

Clinical handover was identified by University Hospitals of Leicester as a root cause or significant contributory factor in 23% of patient safety incidents in 2011/12.

AIM

To develop and implement a clinical handover system that would:

- support safer, more effective patient care
- provide increased clinical accountability
- eliminate risks around information governance
- improve operational and financial efficiency.

ASSESSMENT OF HANDOVER PROCEDURES

A multi-disciplinary team was set up to review handover processes and found:

- no standardised handover procedures
- clinician and nurse handover systems held completely different sets of information
- clinicians and nurses worked from paper notes
- patient notes only updated twice daily
- handover sheets were often illegible
- no record of who made changes to patient notes
- strong clinical dissatisfaction with the existing system.

‘Handover can become like Chinese whispers when a piece of information is passed from one junior to another over five or six handovers.’

ASSOCIATE MEDICAL DIRECTOR AND CONSULTANT IN PAIN MANAGEMENT, UHL

FINDINGS

Handover procedures put patient safety at risk, lacked clinical accountability and compromised patient confidentiality.

They were not fit for purpose.

PROPOSED SOLUTION

The risks identified with handover were mostly related to the system being paper-based; the clinicians moved round the hospital so wanted to carry the patient notes around the hospital.

After discussions with clinical and nursing staff across the hospital it was agreed to develop and trial a mobile handover system that would address the identified problems and would provide access to live, up-to-date patient information from anywhere in the hospital.

The solution proposed was a mobile system, optimised for wireless as well as wired environments, that would give clinical teams real-time access to complete, up-to-date patient information.

The new system would be built around a mobile phone or tablet that would display a live task list so clinical staff could see at at a glance which patients were waiting to be seen, what tests need doing and which results were outstanding. As each task was completed the clinician would update the system directly at the patient’s bedside.

‘If all outstanding tasks are shifted from one person to another electronically then things cannot get missed and if they do an alarm is raised. Plus there is in-built accountability.’

SENIOR PAEDIATRIC CLINICIAN, UHL

KEY MEMBERS OF THE MULTI-DISCIPLINARY TEAM

- **Lead**: Beverly Collett, Associate Medical Director and Consultant in Pain Medicine, UHL
- Andrew Batchelder, Specialty Registrar in Surgery and National Institute for Health Research Academic Clinical Fellow in Medical Education, UHL
- Julia Ball, Head of Nursing for Planned Care, UHL
- Sarah Dillon, Foundation Year 1 doctor, UHL
- Izhar Kler, Planned Care, IT Business Partner, UHL
- Claire Rudkin, RGN, Five Critical Safety Actions Programme Lead, UHL
- Chris Sutton, Consultant Surgeon, UHL

RESULTS TO DATE: NURSES

BEFORE

Nurses’ handover notes prior to introduction of new system

System number	Surname	Forename	Age	Ward code	Consultant code	Bay Bed	EWS	Fluid status and nutritional input
HN123456	SMITH	JOHN	81	RSAU	CC1	1.1		NBM
Procedure Diagnosis Relevant Pmh PR bleeding and umbilical pain Pmh AF, ^BP, borderline diabetes Ongoing care 1) swabbed 3) NBM IVI 5) Needs stool sample if has loose stool, stool chart. Aspirin on hold. May require further investigations? OGD. 10) Lives with daughter. Independent. Pressure areas intact.								
HN234567	SMITH	JANE	71	RSAU	CC2	2.2		NBM
Procedure Diagnosis Relevant Pmh 1/7 history of RUQ pain Ongoing care								

‘The handover sheets we use are poorly laid out – just a jumble of words really – which makes it hard to pick out the crucial information. I don’t find them useful.’

SENIOR NURSE, UHL

AFTER

Nurses’ handover notes after introduction of new system

1-1	Smith, John HN12345601/01/19xx (81 yrs) Carl Crookes Male	EWS 4	Diagnosis: PR Bleeding/ Umbilical Pain Fluid Balance/ Nursing Care: Hold aspirin, may require OGD/ siggy. Needs stool sample if further loose stools NBM/ IVI Waterlow Score/ Plan: 9 Self Care. 4* check Wound/Drain Care. Self care LTCBD Discharge/ Mobility/ Referrals: Lives with Daughter/ has stairs. No social care at present. Referred OT/Physio 15/5 Nutritional Status: NBM.	Tasks: CT Request/Review ECG Recording Blood Results Interpretation EDD: 26/5/13 Obs Frequency: QDS
	Ceiling of Treatment: Not For Resuscitation Risks / Warnings: Allergic to penicillin MRSA swabs sent 16/5 PMH; AF ^BP , borderline Diabetes			
2-2	Smith, Jane HN234567 03/11/1941 (71 yrs) Carl Crookes Female	EWS 3	Diagnosis: 1/7 history of RUQ Pain Fluid Balance/Nursing Care: Had USScan on 11/5 NAD. Plan to increase PPI. For contrast CT Waterlow Score: 6 Self Wound/ Drain Care :Pressure areas Intact Discharge/ Mobility/ Referrals: Lives with Husband. Independent with ADL, referred pain team 17/5 Diet/Fluids: NBM	Tasks: ABG Required X-Ray Request/Review Blood Results Interpretation EDD: 22/5/13 Obs Frequency: BD/ daily BM
	Ceiling of Treatment: Full Active Management Risks / Warnings: MRSA neg 18/5 PMH Laporotomy. NIDDM			

‘It is great. The patient record is now better structured; it is nicely set out. And it has everything on it. On the old system, it was a bit hit and miss whether fields such as EWS were filled in but it is always listed on the new tool.’

SENIOR NURSE, UHL

Percentage of nurse handover sheets including information on four key areas as defined by the Head of Nursing for Planned care, UHL

RESULTS TO DATE: CLINICIANS

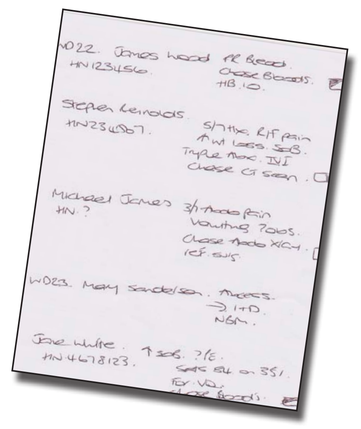
BEFORE

Doctors’ handover notes prior to introduction of new system

Inpatients on Ward X					
Location of patient	Patient	Diagnosis	1x	Plan	Jobs
1.1	John Smith HN123456 01/01/19xx	PR bleeding			C bloods
2.2	Jane Smith HN234567 02/02/19xx	Cholecystitis			C bloods

‘I worry that I hand something over and it doesn’t get done, either because the person forgot to do it or because they lost the bit of paper. Then I’d get the blame! When something goes wrong it is essentially one person’s word against another’s.’

SENIOR CLINICIAN, UHL

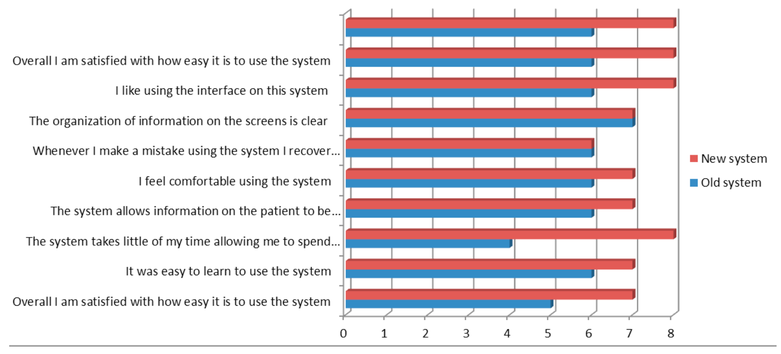


‘Sometimes I hand things over and then I discover they are not done. I requested a blood test one evening on a patient with elevated potassium levels but it wasn’t done for over 24 hours. That was potentially a patient death.’

JUNIOR CLINICIAN, UHL

AFTER

Increase in staff satisfaction with mobile handover system



‘The new handover system is brilliant. It ensures patient data is more accurate, that clinicians get to sicker patients sooner, that jobs don’t get missed and, if they are, there is built in accountability.’

SURGEON, UHL

Percentage of clinician handover sheets completed to a standard meeting Royal College of Physician guidelines

OUTCOME

The introduction of the new mobile handover system has:

- improved patient safety,
- removed clinicians concerns around accountability, and
- addressed the risks around information governance from loss of confidential patient information.

LESSONS LEARNT

A multi-disciplinary team, comprising both senior and more junior members, is essential to the delivery of a project such as this. The more experienced team members bring knowledge and authority whilst the less experienced bring vigour, enthusiasm and sometimes a fresh outlook to the problem.

Many people find it hard to accept change but, contrary to popular opinion, it is not always the oldest or longest serving members of staff who reject change. In our work we found it was often these individuals who championed the project, embracing the change and welcoming the improvements it delivered.

Engaging with a wide range of staff is essential in a project such as this. By doing this we found, for example, that handover requirements vary significantly according to specialty and ward. One size does not fit all. Involving many users, therefore, was essential to the success of the project.

FURTHER INFORMATION

For further information on this project please contact Claire Rudkin at **Claire.E.Rudkin@uhl-tr.nhs.uk**

ACCA