Improving patient flow using a digitally enabled co-ordination centre

Kings Fund Digital Health and Care Congress
11th July, 2018
What we’ll cover today

A. Why have we undertaken a programme to improve patient flow?
B. How has our coordination centre been launched?
C. What impact has it had and what have we learned?
D. What could we do next?
UCLH operates services across many locations, with 2 major inpatient campuses:

Queen Square campus inpatients:
- National Hospital for Neurology and Neurosurgery
- National Hospital for Neurology and Neurosurgery at Cleveland Street
- Royal London Hospital for Integrated Medicine

UCH campus inpatients (UCH and EGA):
- University College Hospital Site comprises of:
  - Macmillan Cancer Centre
  - University College Hospital at Westmoreland Street
  - Hospital for Tropical Diseases
  - Institute of Sport, Exercise and Health
  - University College Hospital Elizabeth Garrett Anderson Wing

Additional locations:
- Eastman Dental Hospital
- Royal National Throat, Nose and Ear Hospital
Our Vision, Values, Strategy and Objectives support improving our services and operations

Local care
Working with partners we will improve the health of our local population

Operational excellence
We will optimise our operational processes, supported by new technology and electronic health records, separating acute and elective streams where possible

Specialist care
Investing in our specialist services we will ensure world class provision for our patients

Expand research
We will work more closely with UCL (University College London) and other academic partners, becoming a research hospital where research is embedded across all services
We see ~80,000 inpatients each year
Operational flow processes have historically caused UCLH real issues

What it used to feel like…

Operational management of patient care delivery at UCLH depended upon an outdated system involving manual data capture and whiteboards.

…and how that impacted our patients

Current state – impact on patients

“"I had my surgery today after it being cancelled a few times...”"”

“The last time I understood why it was cancelled but the first time I came down and waited from 7am until half 5 (over 10 hours) and then they decided to cancel it”

“It’s a long time to wait and to be told it’s then cancelled after waiting all day was a bit distressing.”

This lack of “live” understanding of the current hospital status inhibited effective decision making and escalation processes, impacting negatively on efficient use of our resources and patient flow – at a detriment to patient experience and clinical outcomes.
What we’ll cover today

A. Why have we undertaken a programme to improve patient flow?

B. How has our coordination centre been launched?

C. What impact has it had and what have we learned?

D. What could we do next?
The vision for our coordination centre…

**Vision**
Remove operational frustrations so that we deliver excellent care, all of the time and make every day in hospital a value added day for our patients

1. Visibility of patient status and pathway progression.
2. Daily Clinical Utilisation Review
3. Auto-discharge of patients
4. Auto dispatch of porters and bed cleaners
5. Real time tracking of assets
6. A Coordination Centre matching demand and capacity
7. Enhanced data and reporting

University College London Hospitals
NHS Foundation Trust

Vision

1. Remove operational frustrations so that we deliver excellent care, all of the time and make every day in hospital a value added day for our patients
A number of key decisions affect the culture of the coordination centre

- Do we control or enable/coordinate using the systems?
- To what extent is decision making centralised (vs. distributed/devolved)?
- What activities does the coordination centre do?
- What level of automation do we aim for (vs. manual processes)?
We worked with our operational teams, supplier and IT to agree the project scope

Coordination Centre responsible for:
- Bed allocation
- Bed cleaning / domestics
- Portering and patient movement

And also manage sites and staffing at night (pink areas)

Support the discharge and CUR processes working with our “Exemplar ward” programme
We approached this as a new way of working supported by technology, rather than the other way around

**Staff Champions**

- A network of over 150 Staff Champions from across the organisation created.
- Staff Champion Programme – an intensive programme, over 3 half-day workshops, equipping them with the skills they need to perform the role.
- Master Classes – a series of Master Classes to show them how the end-to-end process works, and to enable them to interact with the system.

**Comms & Engagement**

- Regular updates to Staff Champions via fortnightly Huddles and weekly emails.
- Simple ‘role profile’ hand-outs explaining what will change for each role and the benefits – helping Staff Champions brief their peers.
- Regular face to face updates at key forums across the organisation.
Site Visits

- Visits for current Operation Centre staff to Coordination Centres in the US to see how it works in practice.
- Visits to UK sites using TeleTracking including Wolverhampton and Chester.

Training & Support

- Dedicated role-based Staff User training (part of a Train The Trainer model).
- Supporting aides such as Quick Reference Cards, video-clips and a ‘lab’ to practice in – to help reinforce skills as well as to help Champions train their peers.
- On-site support at golive ‘on the ground’ involving teams of floor-walkers.
This programme was part of a broader change programme for the Trust (uclhfutur)
The uclhfuture programmes helped us to prototype and test many of the new processes

For example:

• Daily huddle to update every patients’ discharge status around the “PSAAG” board

• Start planning for patient discharge on admission or pre-admission

• Daily review of every patient’s treatment/pathway

• Full multi-disciplinary team involvement at huddle - doctor, nurse, pharmacist, discharge team, therapist, ward administrator, social worker etc
What we’ll cover today

A. Why have we undertaken a programme to improve patient flow?

B. How has our coordination centre been launched?

C. What impact has it had and what have we learned?

D. What could we do next?
The Coordination Centre and our ops meetings now feel very different...

We work from a “Real-time” bed state and so our operations meetings now focus on actions (not information gathering)
The coordination Centre and our ops meetings now feel very different…

The team spends less time on the phone and chasing information…

... it’s a lot quieter
We targeted 10 key outcomes for the programme to deliver…

**FLOW**
1. Reduce overall length of stay.
2. Reduce ED / recovery / clinic wait times for beds.
3. Reduce ITU transfer delays due to no ward beds.
4. Increase the number of patients discharged before 12pm and overall earlier in the day.

**LOGISTICS**
5. Improve bed turnaround times.
6. Improve portering & bed cleaning response times.

**EXPERIENCE**
7. Improve patient and staff experience.
8. Save clinical staff by time by being able to find mobile assets in seconds

**PROCEDURES**
9. Reduce number of cancelled operations due to no bed availability.
10. Improve theatre / procedure area utilisation.

...We are evaluating it now
Pre-12 discharge is improving… but needs support on the ward (to drive the change)

Ward optimisation commenced
...and have developed dashboards to track our progress

T08N: Infection (example ward view)
We have had good engagement and seen operational improvements since go-live

Examples of feedback from wards.

“Can I just say that I am actually enjoying this experience and the more the team use it the more they are able to use it. In time it will all be second nature” CPF, T6 Gynae.

“We asked for a patient to be moved from an outlying ward to our frailty unit. Previously this would have taken days and numerous phone calls to arrange. It all happened in one afternoon” Consultant in Elderly Medicine

“This is the best bed board I have seen” Chief Nurse, UCLH.

“Fantastic improvement in bed cleaning response times”, AMU clinician.

“Phones are definitely ringing less, we have more time for patient care” Deputy Charge Nurse, T9 North.

‘CUR reports are helping us understand the one thing that might be stopping our patients from being discharged’, UCH and QS clinicians.

“Being able to search for an asset looks great!” EGA midwife.
We have had some good engagement and seen some operational improvements since go-live

Examples of feedback from Portering & Bed Cleaning

Although there are important issues that will need addressing, the overall feeling from the porters team… is one of confidence in what the technology can do for them and their work. They are impressed with the system and remain as committed as ever to using it to provide the best possible service for patients.

“Christmas was a difficult period, but we got through it. I would say that it took us until the end of February to feel really comfortable with the system. We’re getting more and more used to it, and the more we’re liking it, especially as we now can locate our wheelchairs around the site.” John Boyd, Portering Manager.

“Overall, we have come through all the difficulties setting up this new system and now we are seeing the many benefits” John Boyd, Portering Manager.

“In the past it could take 15-20mins on the radio to contact the controller to accept/progress/cancel a job. Now we get all the info we need on the screen of our iPod straight away”, UCH Porter.
What we’ll cover today

A. Why have we undertaken a programme to improve patient flow?

B. How has our coordination centre been launched?

C. What impact has it had and what have we learned?

D. What could we do next?
What could we do next?

- We currently support our two largest sites through our coordination centre - we could extend to more of our sites

- We can use the real-time bed state to provide information to help regulators coordinate the system (NHSE have recently written to Chief Execs asking for hospitals to produce real-time bed state using an automated system by next winter)

- Health systems (e.g. Hospital Groups or STPs) could introduce similar systems to manage flow

- We could work with our supplier and use the location information data to inform “AI” learning and modelling of hospital flow