Three Nights of Much Better Sleep:
The Bradford Diagnostic Virtual Ward

Dr Stefan Williams
Clinical Leadership Fellow / Neurology Registrar
Improvement Academy (Yorkshire and Humber AHSN)
Dr Alex Brown

Consultant Physician in Elderly Medicine
Deputy Medical Director
Bradford Teaching Hospitals NHS Trust
Consultant ward round

Blood transfusion and order tests

Day 1  Day 2

GP blood test: Anaemia

Patient admitted
Day 1
GP blood test: Anaemia
Patient admitted

Day 2
Consultant ward round
Blood transfusion and order tests

Day 3
Gastroscopy: Normal
Day 1
GP blood test: Anaemia
Patient admitted

Day 2
Consultant ward round
Blood transfusion and order tests

Day 3
Consultant ward round
Plan: CT scan and colonoscopy

Day 4
Gastroscopy: Normal

Day 5
CT Scan: Bowel tumour
Day 1
GP blood test: Anaemia
Patient admitted

Day 2
Consultant ward round
Blood transfusion and order tests

Day 3
Consultant ward round
Plan: CT scan and colonoscopy

Day 4
Blood test results:
Gastroscopy: Normal

Day 5
CT Scan:
Bowel tumour

Day 7
Colonoscopy:
Tumour confirmed

Day 8
Seen by surgeon.
MDT booked.

Home
(Surgery Day 18)
The Bradford Diagnostic Virtual Ward

• The patient goes home

• Test on an inpatient timescale
  • Radiology, endoscopy, cardiac investigations

• Co-ordinator
  • liaises with patient and staff
  • Arrange the appointment date and time for the patient
  • Forward the test result to the patient’s consultant
DIAGNOSTIC VIRTUAL WARD

A patient can be discharged home but have a test on an important timeline.
Co-ordinator will check the appointment, arrange and notify the patient's consultant.

- Diabetic
- Renal assessment investigation
- Medico-legal
- Coma
- Craniotomy
- Neurosurgery
- Trauma
- Surgery
- Brain lesion
- Feeding problems
- ß-cell function
- Spinal
- Liver
- Cardiology
- Indeterminate
- Cystic fibrosis
- Tumor
- Pancytopenia

Sister: Bleep 222

Bleep: 222

Bleep: 222

Bleep: 222
Consultant ward round

Blood transfusion and order tests

Day 1

Day 2

GP blood test: Anaemia

Patient admitted
Consultant ward round

Blood transfusion and order tests

Day 1

Day 2

GP blood test: Anaemia

Patient admitted

Bradford Diagnostic Virtual Ward
Day 1
GP blood test: Anaemia
Patient admitted

Day 2
Consultant ward round
Blood transfusion and order tests

Bradford Diagnostic Virtual Ward

Home
Day 1
GP blood test: Anaemia
Patient admitted

Day 2
Consultant ward round
Blood transfusion and order tests

Bradford Diagnostic Virtual Ward

Day 3: Gastroscopy
Day 5: CT scan
Day 7: Colonoscopy

MDT

Day 18: Surgery

Results to consultant
What is our microsystem?

Staff from across the hospital who refer patients to the service

The coordinator

The hospital operations centre (patient flow coordinators, bed managers)

Patients in the diagnostic virtual ward

(The guru)
Our results

In 4 months (Mon to Fri only)

• 298 patients
• 358 tests
• **830 bed days saved**
  (days from discharge to test)

• 4 readmissions while on the pathway
Our results

Use of the Diagnostic Virtual Ward by week
Our results

Number of Tests by Specialty

- Surgery: 100
- Gastro: 10
- Stroke: 60
- Neuro: 5
- C.O.E.: 10
- Endocrine: 10
- Gynae: 20
- Vascular: 10
- Renal: 5
- Medical (MAU): 10

Number of tests
Patient Feedback

1 in 10 patient sample

- Overall Satisfied: 100 %
- Ready to go home: 100 %
- Able to manage at home: 100 %

- Suggested improvements: Transport for tests

- Many positive comments:
  - “I got three nights of much better sleep”
  - “Jo was really helpful”
  - “I think it’s a really good thing”
Staff quotes

• Ward 9 charge nurse
  – “Patient discharge is speeded up. It’s a simple concept but it works. I wish it was available when my dad was an inpatient.”

• Consultant Gastroenterologist
  – “The service was very user-friendly. We told Jo what was needed and she was very efficient in making all the necessary arrangements and keeping everyone including the patient in the loop.”
Future measurement

• Looking at specific tests (eg MRI head)
  – ? An increase in the proportion of patients at home
  – ? without an increase in the total number of tests
Have we actually used quality improvement methodology?
Challenges

• Acceptance and integration into the ‘operations centre’ team

• The business case
The Future

- A virtual hospital?
Thank you