Sandwell and West Birmingham Hospitals NHS Trust

Novel Virtual Clinic to Enable Safe Hospital Discharge and Reduce Outpatient Appointments

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Royal College of Physicians | Future Hospital

Overview

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- Strategy
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- Limitations
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Problem

	New Patient			Follow-up		
	2016-17	2017-18	Difference	2016-17	2017-18	Difference
General medicine	183	190	+7	108	95	-13
Gastroenterology	183	188	+5	108	72	-36
Endocrinology	189	222	+33	96	93	-3
Clinical Haematology	288	244	-38	120	109	-11
Hepatology	183	327	+144	108	134	+26
Diabetic medicine	203	194	-9	95	81	-14
Cardiology	168	157	-11	96	79	-17
Dermatology	107	133	+26	70	56	-14
Respiratory medicine	182	208	+26	105	94	-11
Respiratory physiology	167	148	-19	136	120	-16
Infectious diseases	322	335	+13	209	143	-66
Nephrology		248			115	
Medical oncology	269	214	-55	128	105	-23
Rheumatology	209	246	+37	93	111	+18
Geriatric medicine	245	265	+20	137	130	-7

Problem

Main Driver

Unacceptable waiting times for outpatient appointments due to demand, contributed to by inpatient follow up appointments

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GPs are requested to follow up or arrange investigations instead

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Added pressure on already stretched GPs + Poor communication from discharging hospital

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Investigations not done or not seen

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Secondary Driver

Patient safety issue

Background

- Choice of GP or hospital follow up following hospital admission
- Cost of new outpatient appointment approx. £108
- Discharge summary handover of information poor
- 1 GP covers approx. 1500 patients
- Virtual clinics allow follow up of patients by secondary care doctors without the need for outpatients appointments
- Previous studies have shown cost savings and improvement in patient care

Baseline measurement

- Audit of patients discharged from the respiratory ward in April 2016
- Looked at
  - Number of patients
  - Number of outpatient investigations required
  - Number that had been requested
  - Number that had been done
  - Any evidence that these had been seen and acted on

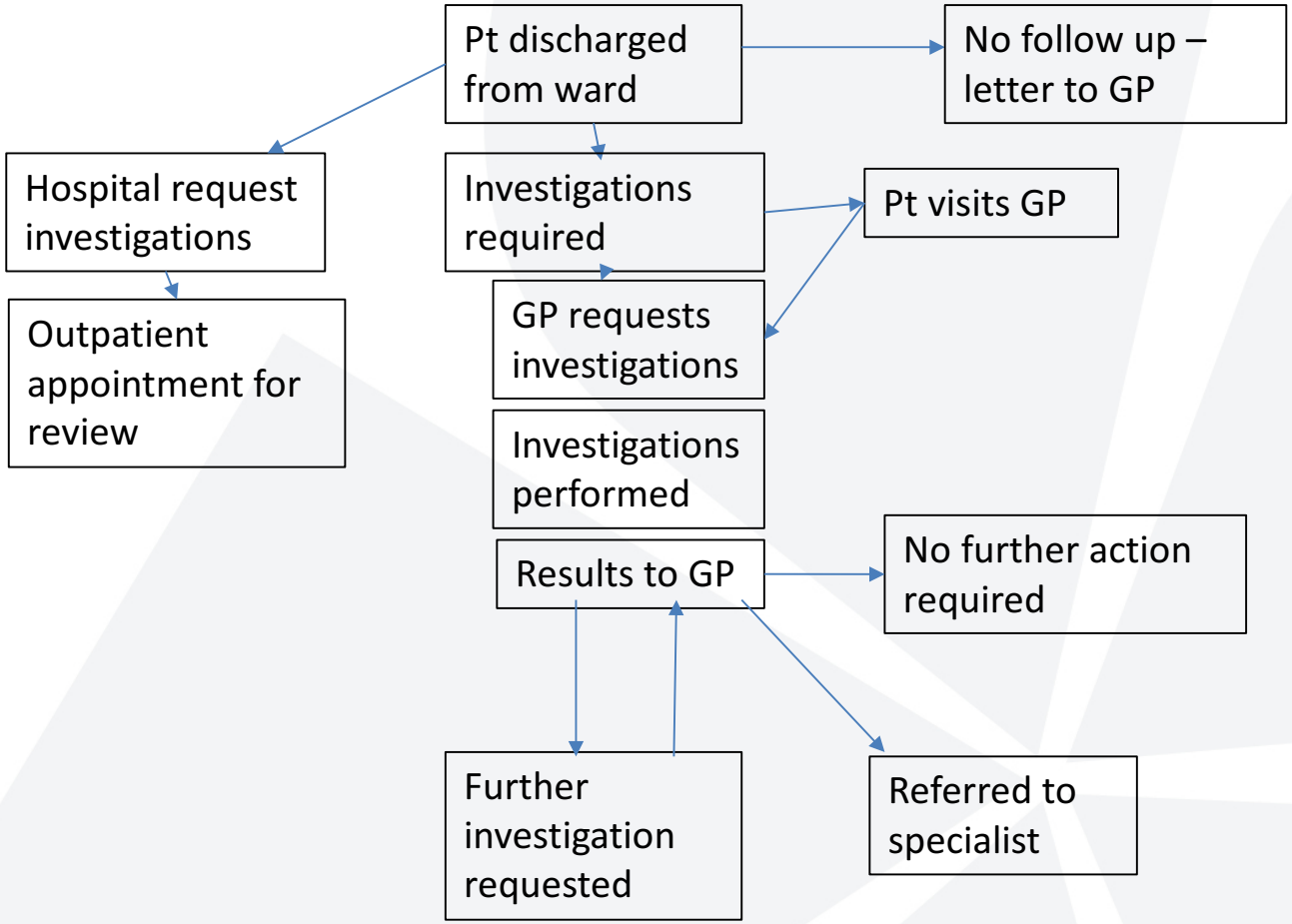
Baseline measurement

- 32 patients discharged
- 11 patients had investigations planned
- 10 were planned to be requested by the hospital and 1 was to be requested by the GP
- 6 were planned to be followed up by the GP
- 2 were not requested
- 5 of those requested were not performed due to cancellation by patient or department or DNA'd appointment
- There was only evidence that 1 investigation had been followed up and acted upon

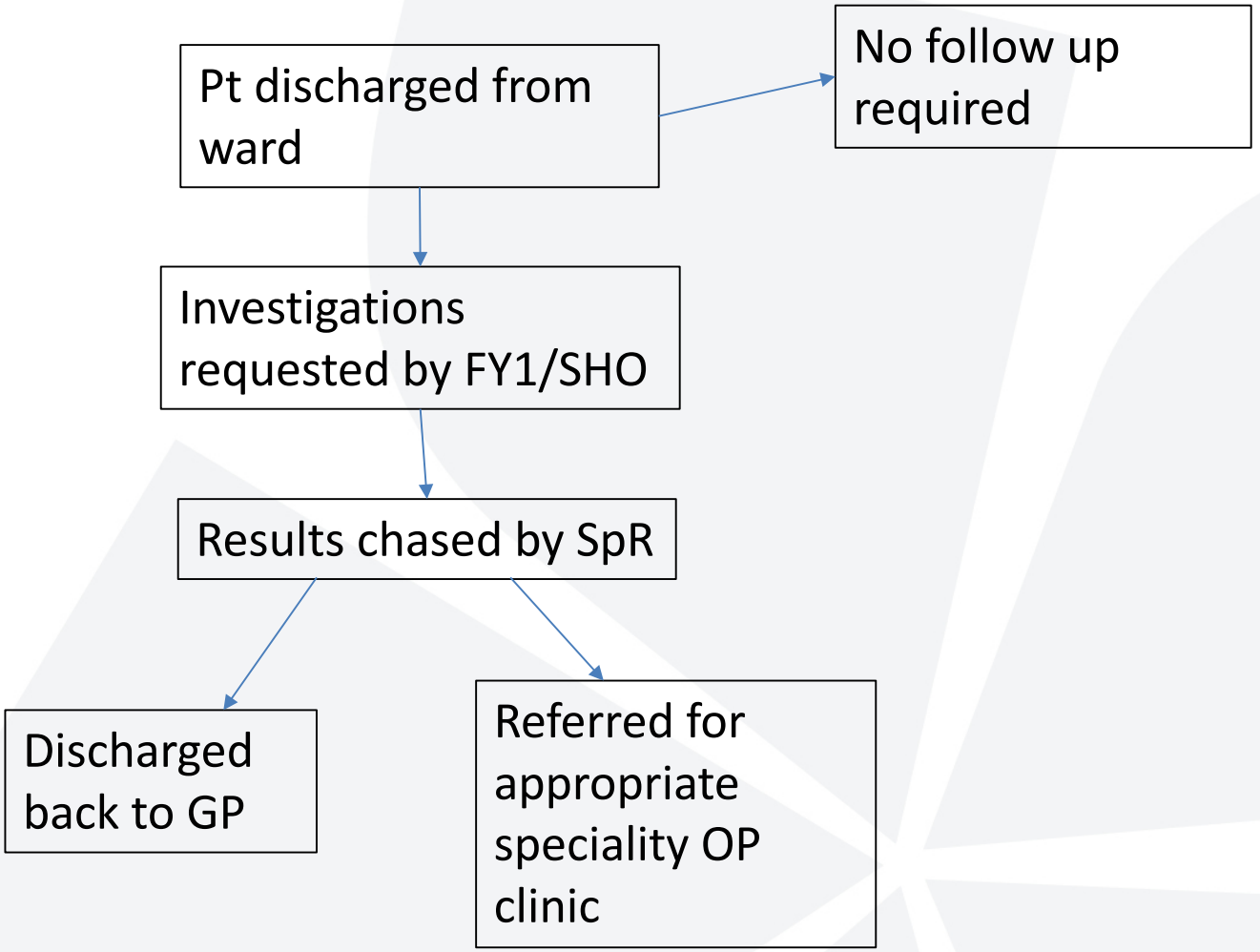
Design

- The department of Respiratory medicine was identified as a Site for Future Hospitals Programme development site.
- We used Quality Improvement tools to address the dual issue of high demand for OP services and safe and early discharge
- A system was designed whereby patients' investigations could be followed up remotely after discharged
- Led by me, Respiratory registrar, with co-operation from consultants and juniors
- Patients identified prior to discharge as appropriate for virtual clinic follow up by registrar or consultant
- On discharge, information added to system
- Results reviewed weekly by registrars and acted on appropriately

Previous Process



Process using Virtual Clinic



Strategy

- PDSA cycle 1
  - Excel Spreadsheet set up on shared area, accessible by respiratory team
  - Team educated on appropriate patients, how to add patients and how to look up and act on results
  - Feedback
    - system well received and thought to be useful
    - Issues with use of Excel
      - does not allow easy searching and reorganisation of data
      - Risk of mixing up data when sorting or permanently deleting data

Strategy cont'd

- PDSA cycle 2
  - Access database set up in same location as old spreadsheet
    - Each patient has unique identifier
    - Allows 'queries' to search for patients who have investigations due
    - Allows a 'one to many' relationship for patients with multiple admissions or investigations
  - Technical issue due to not being able to access the patient database systems or dictation system through the shared area
- PDSA cycle 3
  - IT assisted with installing the hospital database and dictation system on the shared are

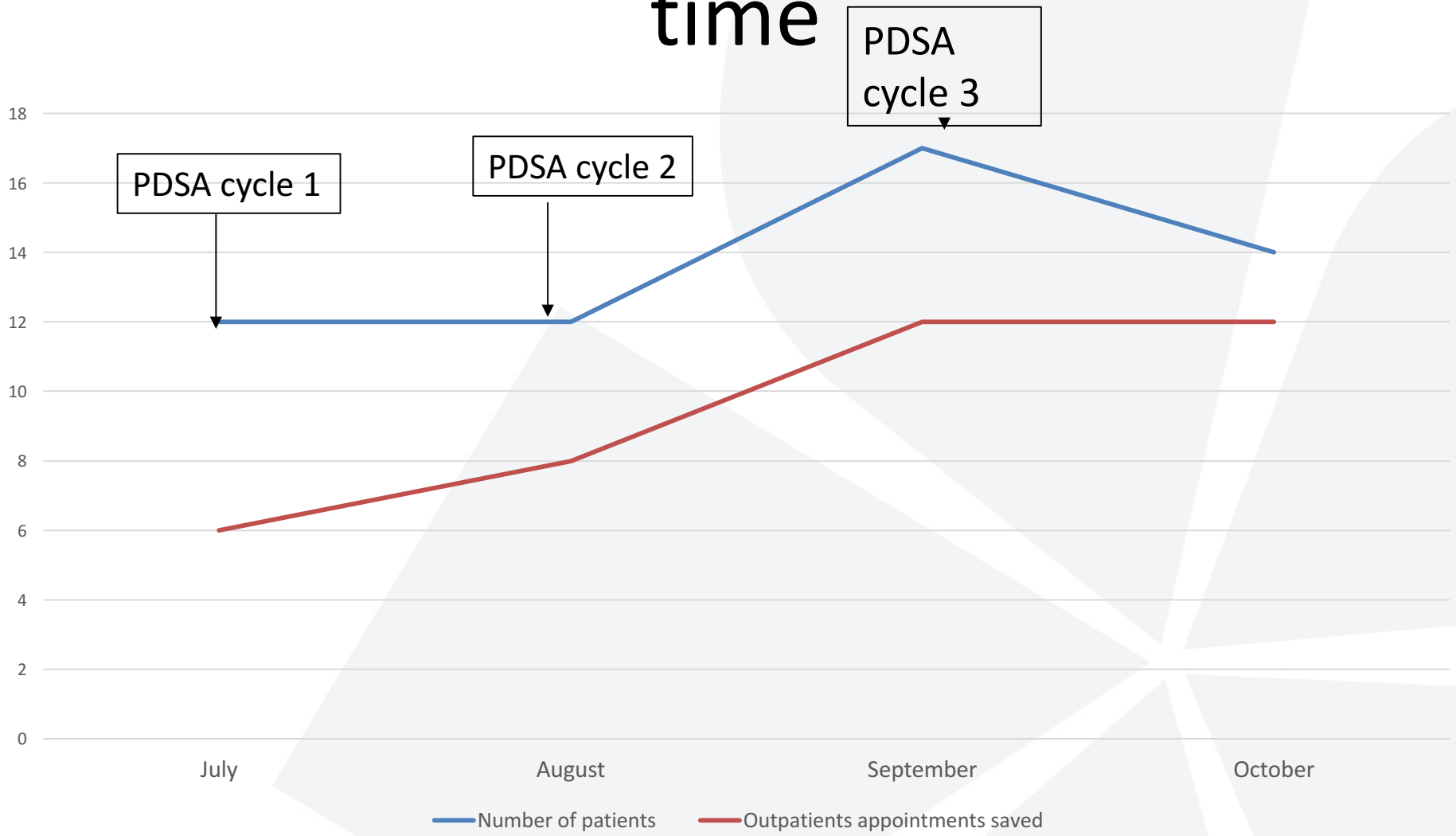
Strategy cont'd

- PDSA cycle 4
  - Aiming to roll out the system more widely
  - Initially in respiratory wards at sister hospital Sandwell
  - Separate database set up for the Sandwell site
  - Idea presented to the Sandwell team
  - Concerns from Sandwell registrars due to work load and part time registrar
  - Interest from SHOs in running the virtual clinic
  - Unfortunately the system was not adopted
- PDSA cycle 5 – in progress
  - Virtual clinic will be incorporated into job plan for new registrars commencing August/November

Results

- 82 patients processed through the virtual clinic in 9 months
- 62 outpatient appointments saved
- Cost saving of £6696
- Percentage of investigations done, reviewed and acted upon increased from 10% to 83% with use of the virtual clinic
- 100% of doctors agreed or strongly agreed that the virtual clinic was a useful tool to ensure safe discharge and helped to reduce outpatient appointments

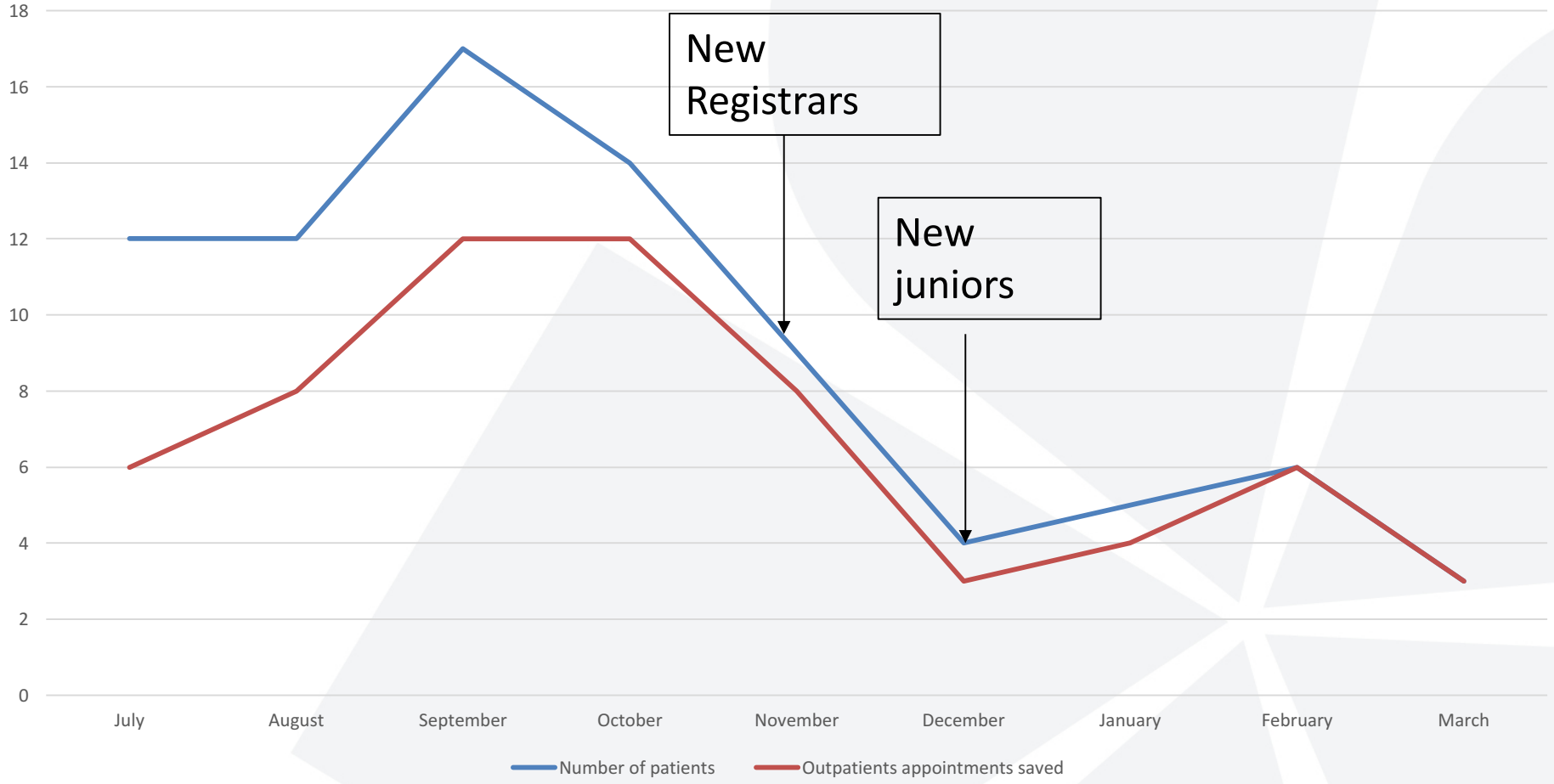
Virtual clinic use and OPA saved over time



Limitations

- Heavily dependent on registrars and juniors to make use of and ensure the tool is run effectively
- Foundation year and SHOs move departments every 4-6 months
- Registrars move hospital every year

Virtual clinic use and OPA saved over time



Limitations cont'd

- To become engrained in the workings of the hospital, the system would need to be incorporated into the trust IT system allowing close monitoring of activity
- This would require investment
- A formal cost analysis could be used to apply for this funding and incorporate the clinic into job plans of registrars/consultants
- The investment would detract from calculated savings but would likely still provide significant saving to the trust

Conclusions

- A virtual clinic used to reduce new outpatient appointments for patients discharged from a hospital ward is a feasible and simple tool
- It ensures patients are effectively followed up without placing extra burden on GPs
- Investment would be needed to ensure it is incorporated into IT systems and doctor job plans for it to work to its full potential

Thank you

Any Questions?