Improving workflow in CT

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‘why is the asset getting cold?’

Factors affecting workflow

- Bookings
- Patient preparation
- Organisation
- Unplanned delays

Universal agreement on exams

- All exams have a 15 minute slot – nothing except CTCs need ‘vetting’
- Everything can therefore be booked by clerical staff immediately
- No set lists – so therefore no complicated patterns to follow
- All radiologist in approval of set protocols – therefore one size fits all
- This is cross site – Sutton and Chelsea departments
- Vital input from radiation physics in optimising doses and cross site parity – Dose optimisation meetings

Delegation of Authority

- Radiology Imaging Referral Guidelines
- Radiographers can protocol 90% of all exams – freeing up radiologist to report and not be interrupted
- SOP for delegation of authority and only Band 7 and above after training can justify
- Knowledge comes from journal clubs, attending MDTs, knowing disease pathways

Patient prep – IV contrast safety

- Society of Radiologist Guidelines

Standards for intravascular contrast administration to adult patients (3rd edition July 2015)

Increased risk is associated with:

Aged over 75 years

Heart failure

Diabetics on Metformin

‘do you have diabetes, heart failure or any kidney problems..’

Recommend an eGFR in non emergency patients in last 3 months

Renal function must be known in patients taking Metformin

European Society of Urogenital Radiology

Risk factors include

- Aged over 70
- Diabetic nephropathy
- NSAIDS (including Ibuprofen and Diclofenic)
- Recent nephrotoxic drugs

Metformin and raised bloods

‘stop taking Metformin 48 hours before examination and only recommence after 48hours if renal function has not decreased’

Metformin management

- Most widely used oral medication for diabetes

Guidelines say we must have bloods

So – options

Defer and await bloods

Ring GP to get bloods

Carry out bloods and await result

All result in wasted appointment, asset getting cold and patient delay and frustration

Since 1996 the number of people with diabetes has doubled

BBC states that we are ‘in the grip of a health epidemic that is threatening to overwhelm the NHS’

Background

- 4 state of the art CTs
- 2 Chelsea – one doing over 50 % IR including 2 GA sessions
- 95% patients require IV contrast
- 20% need repeat bloods

Old and new

Old system

Take bloods

Go down to labs – flirt

Request urgent bloods – 30-40 minutes awaiting results

Disadvantages

Disruption of list

Out of hours – rebooking

Staff time waste

Pressure on biochemistry

Flirting……

New

POINT OF CARE TESTING

Hand held machine

Instant creatinine result (2 minutes)

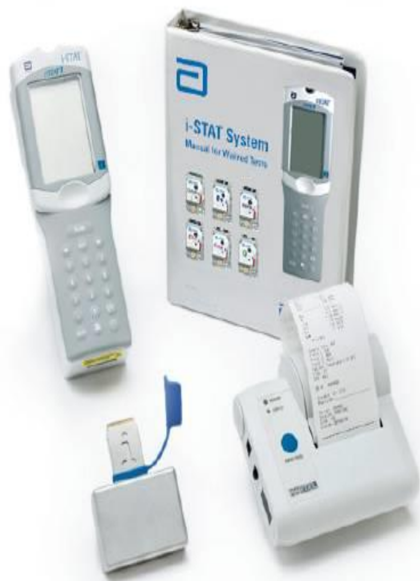
Advantages

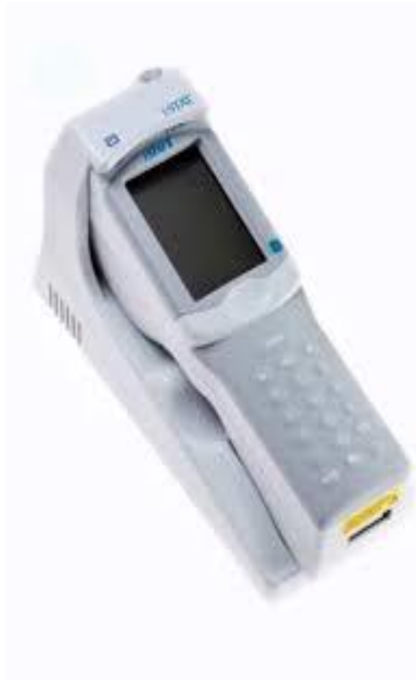
Continuous workflow

Staff freed up to spend time on clinical work

Biochemistry free to carry out other work

Abbott i-stat





Business case

- 10 patients a day - ? More in other Trusts with higher older population burden
- No cancelled appointments
- No long waits for bloods (or in other hospitals cases admin time ringing GP)
- Travel time to transport samples
- Freeing up of lab time
- Patient satisfaction – decrease in complaints
- True extended working day available

Costings

- Current system

(cost of lab, time radiographer spent delivering sample, assessing those not able to attend extending work list)

- New system

Initial purchase of kit, cartridges.

COST SAVING

PLANNING

- Involvement of labs – POCT committee
- Clinical Product Review Committee
- Robust SOP
- League of Friends – direct benefit to patients improving their experience, one off purchase and of a cost level that is possible

Workflow gold standards

- All checks made day before – no surprises, no delays
- All cannulation done by radiographers or HCAs – radiologist never called
- Cannulation outside the CT room – dedicated areas – no delays on the table – huge time saving
- Delegation of authority – 90% protocolled by radiographers – only involvement of Radiologist during the day is to accept urgent IP work or if protocol advice is needed
- 1 exam, 1 slot. No vetting, no certain lists for certain docs – clerical workflow and autonomy
- POCT testing – biggest gain in recent time