# Is ACP led discharge of acute surgical patients safe in Surgical Assessment Unit within a busy Teaching Hospital?

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## BACKGROUND

- Lancashire Teaching Hospitals is one of the largest trusts in the country, providing district general hospital services to 380,000 people in Preston and Chorley, and specialist care to 1.6m people across Lancashire and South Cumbria.
- Royal Preston Hospital is a busy tertiary trauma centre and sub-specialist centre for Major Trauma, Neurosurgery, Oncology, Vascular, Sub-spec cancer surgery, Plastics, Renal Medicine.
- Around 9500 patients per annum attend Surgical Assessment Unit(SAU) as per Trust audit ,2021.
- Acute Surgical admissions to our SAU are triaged and assessed by Advanced Clinical Practitioners (ACPs) who organise investigations including CT scans and initiate an appropriate management plan.
- Patients subsequently undergo senior medical review, ideally within 4 hours of admission.
- Retrospective audit showed an average of 4 patients/week with normal investigations and resolved symptoms wait beyond 4 hours for senior review prior to discharge.

**AIM**

- The aim of this study was to assess whether ACP led discharge is safe.
- Data analysis was done over 54 weeks of ACP led discharge of selected acute referrals conducted from April 2022- March 2023.

## METHODS

- Definite inclusion and exclusion criteria were agreed by ACPs and senior surgical consultants for patient selection for ACP led discharge.
- Patients discharged on this pathway received open access to SAU for 24hrs and those who required further review received Surgical Hot Clinic appointment. Patients discharged with no further follow up received next day telephone review.

### Inclusion and Exclusion Criteria

| INCLUSION CRITERIA | EXCLUSION CRITERIA |
|---|---|
| ✓ Age 16 -65yr old –generally fit and well | ❖ Age above 65yrs old |
| ✓ Blood results-normal/base line | ❖ Multiple co-morbidities |
| ✓ Normal findings on abdominal and PR exam (were indicated) | ❖ Current Cardiorespiratory condition |
| ✓ Absence of symptomatic inguinal, femoral or abdominal wall hernias | ❖ Recent MI, PE |
| ✓ Imaging (if clinically indicated) USS or CT - normal or non-acute findings-refer/discuss accordingly to relevant speciality. | ❖ Currently on high dose of PPI |
| ✓ Normal/no new finding in Erect Chest Xray- (if clinically indicated -for upper abdominal pain) | ❖ Long term steroids |
| ✓ Normal/no new changes in ECG (for upper abdominal pain) | ❖ Current episode of drug overdose |
| ✓ NEWS score : 0 or 1,vital signs stable as per baseline for patient | ❖ Excessive alcohol intake /dependence |
| ✓ Pain managed with simple analgesics, does not require repeated doses of oral morphine | ❖ Drug dependence /illicit drug use |
| ✓ Nausea and vomiting resolved, managing to eat and drink, good urine output, bowels movements as per baseline | ❖ Immunosuppression- on immunocompromising medications |
| ✓ Right iliac fossa pain with onset of symptoms < 24hrs with normal findings- next day review in SAU or Hot Clinic. | ❖ Known autoimmune/immunodeficiency disorders with ongoing treatment. |
| ✓ Urine –routine ward test- negative (if positive treat as per trust antibiotic guidelines) | ❖ Known cancers, active chemotherapy |
| ✓ Urine pregnancy test-negative (if positive refer to Early Pregnancy Unit) | ❖ Previous abdominal, ovarian or haematological malignancies. |
| ✓ Lower abdominal pain with H/o gynaecological problems–refer to gynae once surgical pathology is ruled out | ❖ History of transplant |
| ✓ Constipation- if no underline cause, treat accordingly | ❖ Multiple abdominal surgeries |
| ✓ Shared decision making with patient | ❖ Pain not resolved with simple analgesic despite of normal blood results and imaging |
| | ❖ Non conclusive findings in imaging (eg: appendix not visible, suggestion for other imaging) |
| | ❖ Known Inflammatory bowel disease |
| | ❖ Known history or Family history of Abdominal Aortic Aneurysms |
| | ❖ Recurrent episodes of similar presentation with recent discharge. |
| | ❖ Failed discharge –return in 48hrs |

## ANALYSIS OF RESULTS

Safely discharged 86 patients over 54 weeks

Median age:27yrs(range:16-65),Gender: Female 72 ,Male 14

No failed discharges or unplanned readmissions in 48hrs

**Follow Up**

41 patients received follow up : Surgical Hot clinic review 26

Next day review in SAU 5(4 patients received SAU review and Hot clinic in 72 hrs)

Gynae Hot clinic review 12,Gynae transfer as inpatient 2

45 patients required no further planned follow up

Imaging :66 patients had imaging(USS 51,CT 15,CXR 5,both USS&CT 5)
20 patients required no imaging

Next day telephone review : 49 patients( patients discharged with planned follow up were excluded from next day telephone review from week 6 of this pilot )

Waiting time reduced : median time 1hr45 minutes (range:1.25 hrs-4.5hrs) (after investigations including imaging )

### Summary of Diagnosis

| Diagnosis | Total number of Patients |
|---|---|
| NSAP(Non-Specific Abdominal Pain) | 32 |
| Ovarian Pathology | 12 |
| UTI (Urinary Tract Infection) | 10 |
| Gastritis | 14 |
| MSK (Musculo-Skeletal) | 6 |
| PID (Pelvic Inflammatory Disease) | 1 |
| Post Op wound | 5 |
| Other (constipation, mesenteric adenitis) | 6 |

## CONCLUSION

- ACP led discharge is safe in a selected group of acute surgical patients.
- This reduces the workload of a busy on call surgical team in dealing with less acute diagnoses, as well as making pathways more efficient.
- This model may be suitable for further expansion, although robust exclusion and inclusion criteria should be agreed.

## References

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