ABDOMINAL PAIN (SEE ALSO ABDOMINAL AORTIC ANEURYSM)

Evaluating abdominal pain is difficult – misdiagnosis of this symptom generates more formal complaints than any other clinical mistake made in our department. Did you know that computers are better at diagnosing abdominal pain than doctors? This is because the computer follows a rigid system of history-taking and interprets physical signs in the light of this. You need to take a medical student history – no short cuts! Blood tests and x-rays are less important than history and examination. Abdominal x-ray has a limited role – see section one.

When you have made your diagnosis you have two options

- Admit to surgical / gynae ward
- Discharge with a meticulous recorded disposal plan (see General Information Section)

All patients with acute abdomen should be fasted and have IV fluids prescribed.

This is not an exhaustive list but these are useful things to remember:

- **Diabetes** + Abdominal Pain: ECG & Admit
- **AAA**: See previous section
- **Perforated Peptic Ulcer**: Unable to get comfortable or severe pain that settles very quickly. Can become asymptomatic but still leaking. Erect CXR is mandatory but up to 50% may have no free air especially if history is short.
- **Ectopic pregnancy**: Child-bearing age and positive urinary HCG and serum HCG
- **Ovarian Cyst**: Usually not pathological but cyclical pain may be due to ovarian cyst so recommend GP review to refer to gynae OPD. If abdominal signs consider referring to Gynae. Always do HCG.
- **Constipation**: Not acutely painful. Don't forget bowel cancer as a cause of altered bowel habit – GP review to refer to Surgical OPD. X-RAYS NOT INDICATED!
- **Biliary Colic**: RUQ pain but no signs. Can be discharged if settles with analgesia. WCC, amylase and temp will be normal. GP review*. Don't forget to exclude pancreatitis*!
- **Pancreatitis**: These patients can be very sick (or occasionally surprisingly well!). Vomiting is common. Check amylase but will be normal in around

6% of cases. Check ECG & blood glucose. Vigorous resuscitation and early senior surgical opinion.

- **Appendicitis**: History is the key but presentation may be atypical in the over 50s. (Can have leucocytes and haematuria on urine dipstick)
- **Ischaemic Colitis**: Usually very sick elderly patients with severe abdominal pain, shock, ileus– often with history of IHD etc. Pain relief ++, ECG and early surgical advice. Have a very high lactate level.
- **Toxic Megacolon**: All patients with history of inflammatory bowel disease, abdominal pain and any alteration of vital signs require surgical assessment/ admission. AXR. Resuscitate++ and get help.
- **Shingles**: Pain days before rash. Dermatomal distribution and dysaesthesiae are clues. You will feel very clever if you diagnose this before the rash appears!

GI BLEEDING AND SHOCK

Use the guidelines given below to help you devise a management plan.

1. Patients may require "immediate" endoscopy if

- Ongoing bleeding and haemodynamically unstable

2. Patients may require endoscopy "soon" if

- Suspected varices (see next page)
- aged > 60
- clinical signs of shock (compensated or uncompensated)
- recurrent bleeding.

Fast patient, give O_2 via NRRM, monitor and give iv protium. Notify Medical SHO (and surgical registrar if no GI physician on call) at once

Patients need admission under GI team if ANY of the following apply:-

- they have had proven haematemesis in the past or ED
- they describe any episode of faintness or dizziness since the onset of haematemesis
- melaena is found on rectal examination
- haemoglobin < 12 gd/L
- urea > 8 mmol/L
- underlying liver or cardiac disease
- evidence of coagulation defect (including anticoagulant medication)

Patients may be considered for outpatient endoscopy referral if there is a strong suspicion of a relatively minor haematemesis, and they are otherwise well with adequate home circumstances. Dispense a PPI and suggest this to the GP.

MANAGEMENT OF VARICEAL BLEED

1. Get senior help – senior ED consultant + medical SPR +/- surgical SPR

2. Resuscitation

- Insert two 16g peripheral cannulae
- Check FBP, U+E, LFTs, Coagulation screen, Cross match 6U blood
- Consider intubation if there is evidence of severe encephalopathy, inability to maintain O2 sat >90%, uncontrolled bleeding or aspiration. Also consider central venous access in such circumstances
- Catheterise to monitor urine output
- Start iv Tazocin

3. Fluid management

- Blood transfusion, aim for Hb 10 g/dl (no higher)
- Give FFP if PT >18sec and give platelets if platelet count <60,000
- If no blood is available use colloids (i.e. 1 litre of Haemaccel to begin with) +/- 5% dextrose in preference to 0.9% normal saline if ascites present
- If fluid retention is present consider 20% salt poor albumen
- Aim for CVP 5-10mmHg (if central line present)

4. Endoscopy

- OGD should be performed when patient is haemodynamically stable
- Variceal banding is treatment of choice for oesophageal varices
- Contact GI consultant via switchboard
- If neither gastroenterologist is available contact surgical SpR

5. Vasoconstrictors

- Give stat dose of terlipressin (Glypressin) as a 2mg iv bolus
- Glypressin is then given 1-2mg, 4-6 hourly for up to 48 hrs

6. **Sengstaken-Blakemore tube** may be necessaryif there is uncontrolled bleeding or endoscopy is unavailable:

- Pass tube orally
- Confirm tube is in stomach by aspiration and auscultation
- Inflate gastric balloon with 250mls WATER
- Secure tube at side of mouth with balloon pulled up against gastric fundus. (Beware of pulling tube into oesophagus. Use X-ray to confirm position if necessary)

- Oesophageal balloon is rarely needed (<10%). If required it should be inflated to 20-30mmHg and deflated for 5mins every hour.
- Maintain aspiration of oesophagus and stomach via appropriate ports.

ACUTE RETENTION OF URINE

- *A proper discharge plan is vital if community treatment planned!*
- *Always record residual volume and check PSA*

Three questions about managing AUR:

1. Can the patient be managed at home?
Yes if:
- under 75,
- reasonable general health,
- happy to be discharged (or to take a nursing home place),
- no more than 1000mls residual urine.

2.Should I arrange a trial without catheter (TWOC) before discharge?
Yes if:
- residual was less than 600mls
- and there was an obvious cause of this episode (e.g. binge drinking)

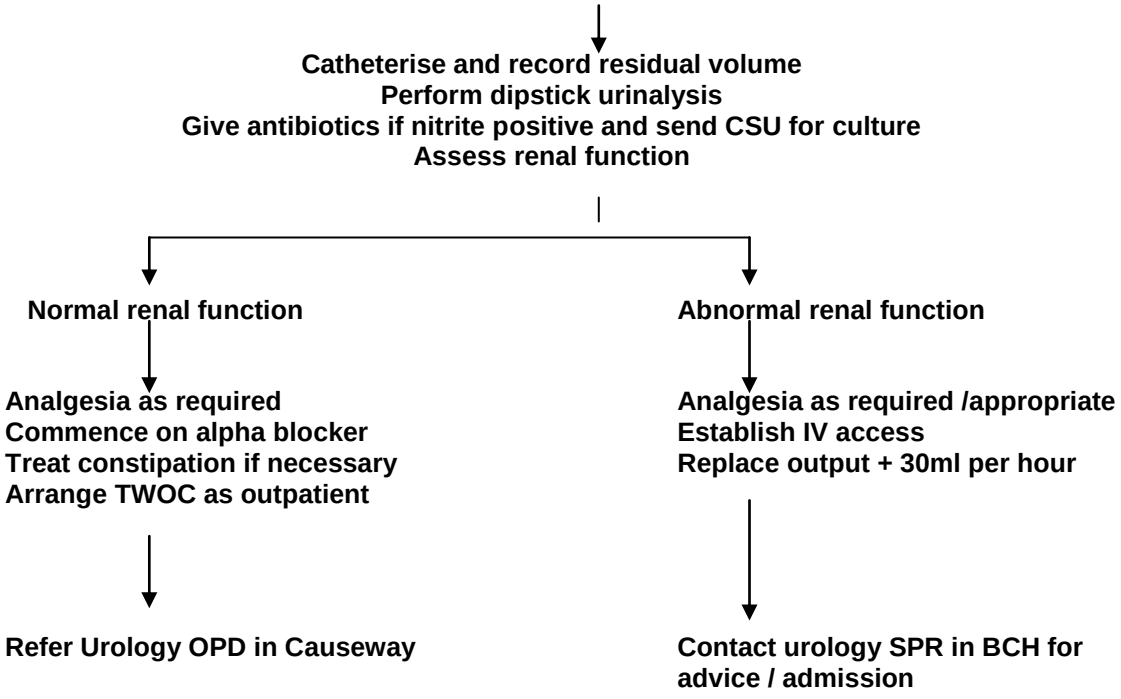
3. Should I arrange a trial without catheter (TWOC) after discharge?
Yes if:
- there was a temporary reason for this episode, e.g. UTI, drinking binge, long wait to get to the toilet
- and patient did not have marked prostatic symptoms prior to episode.

Tamsulosin 400mcg daily reduces recurrence so it should be prescribed if there are no contra-indications – first dose can be given in Emergency Department (see BNF).

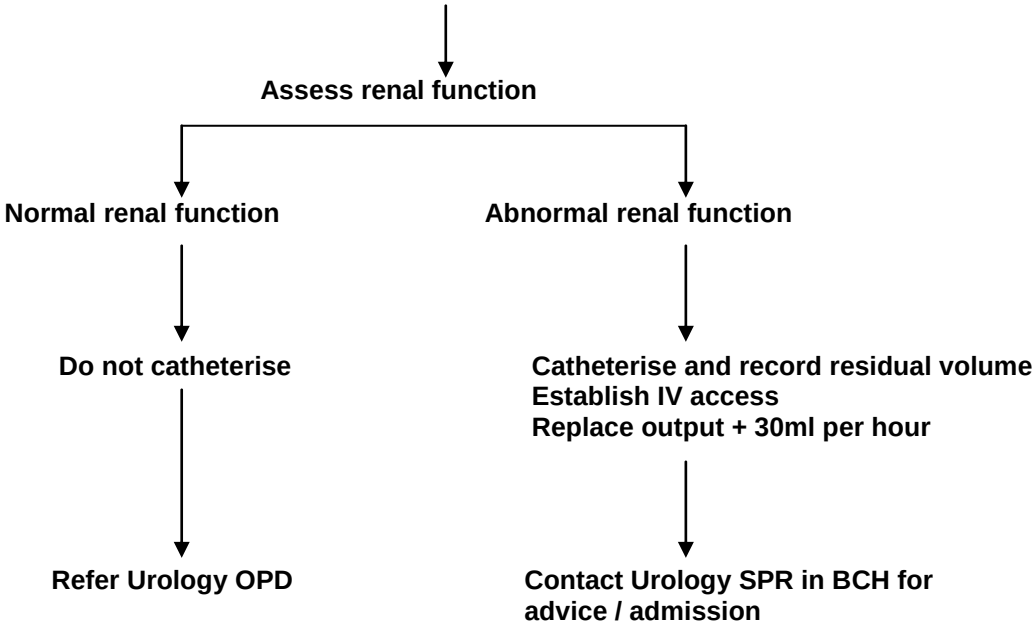
If the patient is discharged with a catheter in you must make very secure follow-up arrangements with him - usually by referring to the Hospital Diversion Team or District Nurse. One of our advice leaflets about catheter care must be given to the patient. Advise the patient to contact their GP to arrange urology follow-up. Management plan must be carefully outlined on flimsey and the GP letter.

- *Acute urology service is provided by Belfast City Hospital (#6124)*
- *Routine outpatient service is provided by Causeway Hosptial*

Management of patients with painful urinary retention



Management of patients with painless urinary retention



RENAL COLIC

- *Patients with renal colic need to have their temperature, urinalysis, abdominal signs and KUB recorded.*
- *Diclofenac is usually the analgesic of choice.*
- *Reconsider the diagnosis if there is no haematuria.*

Management

1. Bloods: FBC and renal function
2. Urinalysis:
   a) **Nitrates** if nitrate positive send MSSU and commence on antibiotics
   If nitrate negative no need for antibiotics
   b) **Blood** arrange for CT KUB
3. Admit to BCH Urology if complete obstruction, pain not controlled or signs of sepsis
4. Refer to BCH Urology as outpatient stone clinic if only partial obstruction with good pain control, no signs of sepsis and no renal impairment. Commence on tamsulosin.
5. If CT KUB negative, consider other causes of abdominal pain. Remember to exclude AAA.

Admission to Observation Ward or surgery

- Severe pain persists desp.ite adequate analgesia
- UTI
- Stone >6mm on KUB plain film
- Single Functioning Kidney
- Diagnosis in doubt (but first rule out AAA in any patient if first presenting age >55 years)
- Frail/ very elderly

MANAGEMENT OF PATIENTS WITH FRANK HAEMATURIA

Record pulse and blood pressure
Perform dipstick urinalysis
Send MSSU if nitrite positive and commence on appropriate antibiotic
Perform full blood picture and renal function tests

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Catheterise with 3-way catheter if there is evidence of clot retention or patient is experiencing difficulty passing large clots.
Record residual volume and commence bladder irrigation with saline.

Refer to haematuria clinic if:

- Patient not anaemic
- Patient haemodynamically stable
- No signs of sepsis
- Irrigating catheter not required

Admit if:

- Patient is anaemic
- Patient is haemo-dynamically unstable
- Patient is septic
- Irrigating catheter required
- Patient on anticoagulant therapy

TESTICULAR PAIN

- *Testicular pain is a common presentation to the Emergency Department. Testicular torsion should be considered in the differential diagnosis of any male presenting with <u>abdominal</u> pain. Boys and learning-disabled young men are at special risk of occult torsion.*

	Testicular torsion	**Epididymo-orchitis**
Pain	Acute onset 20-30% have abdominal pain	Develops gradually
Age range	Pubescent boys Can affect neonates and adults	Post-pubescent 19-40 Can affect younger and older
History	Acute onset 50% report one episode of self resolving pain	Sexual activity Urethral instrumentation UTI
Urinary symptoms	90% urine NAD	Dysuria / freqency Pyuria present in most
On palpation	Testis enlarged, exquisitely tender Unable to distinguish epididymis Testis high riding and horizontal lie	Possible to distinguish the epididymis from the testis. Epidiymis is often enlarged and early on tenderness is localised.
Cremasteric reflex	Absent in most	Present
Prehn's test	Elevation of scrotum does <u>not</u> relieve pain	Elevation of scrotum does relieve pain

<u>Mangement</u>

- ***Testicular torsion is a surgical emergency and requires immediate referral to the surgical team on-call.***
- Epididymo-orchitis requires appropriate antibiotics and analgesia. Admission may be required for toxic patients or for analgesia.
- A normal USS of testes does not exclude torsion. Self resolving intermittent torsion may look like epididymo-orchitis on USS
- Late-presenting torsion mimics epididymo-orchitis – request surgical opinion if pain had sudden severe onset of symptoms

ABDOMINAL AORTIC ANEURYSM

Patients with a leaking aneurysm are bleeding to death

Suspect leaking aneurysm if:

- Over 55 AND
- Severe Abdominal Pain/'Renal Colic' (haematuria is common)/ Low Back Pain OR
- Unexplained Shock OR
- Known AAA and pain or shock

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Patient is examined by the most senior doctor in the ED IMMEDIATELY +/- USS if competent

If AAA still suspected:

- Contact vascular SpR in RVH via #6124
- Patient to be transferred by emergency ambulance ("blue light") to RVH for vascular assessment.
- ECG and IV access
- Do not do CT AAA - this is an unnecessary delay to definitive treatment

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- Usually no doctor is required to accompany patient – surgical doctor if necessary
- Give 100% 02
- Give Morphine +/- Metaclopramide in iv aliquots
- Do not give iv fluids unless unconscious or systolic BP > 80 mmHg

Aim for a maximum time in the Emergency Department of 10 minutes.

Target call-to-surgery is 60 minutes