

# Referring experience as a NCHD

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## Referrals made

- **Xrays: CXR, PFA, other Xrays**
- **USG: Pelvis, Renal, Liver**
- **CT scans: CTAP, CTTAP, CT Thorax, CTPA, CT Brain/Angio, CT colonography, CT urogram**
- **MRI: MRI Brain, MRI Abdo Pelvis, MRI lumbar spine/c-spine, MRI fistulogram, MRCP**
- **Others: Echocardiogram, Carotid doppler, Duplex venous USG.**
- **IR procedures: PICC line insertion, embolization, nephrostomies, liver biopsy, nodal biopsies**
- **External referrals: Cardiac MRI.**

Past

- Referrals made on McKesson and approval sought over phone or in-person from:
  - Radiographer: CXR/PFA
  - Sonographer: USG
  - Radiology Registrar: CT scans – Specific times for discussion; Ring scheduler for appointment
  - Consultant Radiologist/Consultant Neuroradiologist: Approval of MRI's; Ring scheduler for appointment
  - Vascular Lab/Sonographer: Duplex scans.

Present

- **Ordered on McKesson**
- **Check Vetting notes – if additional information needed, amend the form**
- **A/W approval**
- **Urgent Scans: telephone/in-person approval sought**
- **IR forms: paper forms changed to McKesson order**
- **ECHO: McKesson order + email sent to the scheduler**

# Challenges faced

## ▪ Emergency Department:

### **Pros:**

- In-built Xray unit – Expedites Xray's done
- Urgent EM - OPD slots for Venous doppler scans
- 24/7 access for CT scan discussion

### **Cons:**

- Delay in D/C pending scans – done and reported

## ▪ Wards:

### **Pros:**

- Daily discussion with schedulers & bed managers for D/C dependent CT/MRI scans

### **Cons:**

- Delay in care and D/C of patients pending scans; if suitable, urgent OPD scans organised

# Reasons for refusal/delay in vetting



**Radiologist: "Where" Clinician: "What"**

## What do studies show??

1. Borgen L, Stranden E. Radiation knowledge and perception of referral practice among radiologists and radiographers compared with referring clinicians. *Insights Imaging*. 2014 Oct;5(5):635-40. doi: 10.1007/s13244-014-0348-y. Epub 2014 Aug 28. PMID: 25164546; PMCID: PMC4195837

- Radiographers estimated the highest proportion of referrals most unlikely to affect treatment.
- Radiologists rated “getting the patient discharged” as an important reason for such referrals.
- Radiologists and radiographers possess significantly better radiation knowledge than clinicians.

2. Borgen, L., Stranden, E. & Espeland, A. Clinicians' justification of imaging: do radiation issues play role?. *Insights Imaging* 1, 193–200 (2010). <https://doi.org/10.1007/s13244-010-0029-4>

- Limited radiation knowledge and guideline use indicate suboptimal justification of referrals.
- When justifying imaging, weighting of radiation dose may play a larger role than detailed radiation knowledge

For better  
future referrals

- Incorporate Ionising radiation prescription module as part of medical undergraduate education – Bridge the “Where” and “What”



"Well, I don't know WHAT this x-ray is showing us...but I'm seeing Picasso!"



Questions???



"I think I see what the problem is, but I'll send you down for some X-rays just to make sure."