Assessing the departmental provision of Uterine Fibroid Embolisation (UFE)

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Background

Uterine fibroid are benign tumours of the uterus. Whilst most are asymptomatic, they may cause menorrhagia, abdominal discomfort, urinary symptoms and occasionally infertility. For many years the mainstay of treatment was surgical myomectomy, however since 1995 Interventional Radiologists have been treating symptomatic fibroids by embolising the arterial tumour supply, most commonly using PVA particles. As a minimally invasive procedure this confers the advantage of a decreased length of hospital stay[1]. UFE has been the subject of randomised control trials and a Cochrane Review [1-4] and in 2013, a collaborative document was produced between the Royal College of Radiologists (RCR) and the Royal College of Obstetricians and Gynaecologists (RCOG), which sets out clinical recommendations of UFE [4]. NICE also recommends that fibroid embolisation is provided in the context of regular audit [6].

Standards

- Patients should have an MRI prior to treatment and be seen by a radiologist in the outpatient setting
- The procedure should not be contraindicated
- A consent form and surgical safety checklist should be completed
- There should be high technical rates of success and low screening time/radiation dose
- The majority of patients should be discharged within 24 hours of the procedure with low complication rate
- Patients should be followed up in an outpatient clinic or over the telephone

Aim

To compare the provision of UFE at Kent & Canterbury Hospital against the standards set by NICE and suggest areas of improvement if standards not met

Method

- Meeting the standard for the above criteria, ie. Pre-procedural MRI, Seen by Radiologist, documentation, procedure time and dose, length of stay, complications etc
- Technical success is defined as the occlusion of blood flow in the uterine arteries bilaterally
- Technical aspects may vary between centres and include catheter and sheath size, embolic agent used/particle size, whether a closure device was used
- Data was collected using a number of online patient database systems including eDN, ePR, PACS and TheatreMan.
- Paper notes were accessed where online notes weren't available.
- Data on ≥20 consecutive patients was analysed between September 2016 and July 2017.

Results

Target	Percentage achieved
Pre-procedural MRI	96%
Seen by Radiologist in Pre-Assessment clinic	96%
Documentation completed	100%
Technical success	100%
Procedure time < 90 mins	100%
DAP < 450	100%
Length of stay < 24 hours	96%
Minor complications	13%
Major complications	0%
Follow up	91%
Patients who recieved follow up at 6 weeks	42%
Patients who recieved 2 follow up appointments	46%

The targets put forward by the RCR and RCOG have been met in most areas's including pre-procedural MRI, pre-assessment clinic appraisal, procedure times, DAP exposure, length of stay and both minor and major complications. Follow up was conducted in 91% of cases meeting accepted targets but follow up at both 6 weeks and 6 month was met in less than half of cases. Patients with clinic letters completed and uploaded onto the online access system (ePR) was quite incomplete with only 20% having their clinic letters viewable.
Dose Area Product (DAP) was within the target of < 450 Gycm2 in 100% with an average exposure of 52.2 Gycm2.
Of the population sampled there were no major complications. 13% had minor complications all falling within their accepted targets. These included post-embolisaiton syndrome (4%), haematoma (4%), vaginal discharge (4%), fibroid expulsion (4%). There was also a patient with hearing changes post-op (not related to the anaesthetic).

Discussion

Based on the data amassed here it would appear that service provision has been of high standard in many areas. Targets were achieved in the areas of pre-assessment, technical success, procedure time, hospital stay and complications. Areas identified for improvement were related to follow up appointments and access to previous clinic letters.
The department aims to see patients in consultant follow-up clinics at 6 weeks and 6 months. Although most of the patients were seen at least once in follow-up clinic (within a 12 month period), our audit showed that only 46% of the patients were seen twice and only 42% were seen within 6 weeks from discharge.
When assessing patient follow up it is difficult to acertain whether patients are not being offered follow up at the appropriate time period or whether gaps in follow up are due to non-attendance or lack of uploading clinic letters to the appropriate online data bases. Further analysis appointment letters and filed clinic letters would be use line of further investigation.
Assuming a certain level of non attenders, steps which could be taken to improve this might include, sending reminders for the 4-6 weeks and 6 month follow up - this should also be added to the online documentation so there is a clear follow-up timeline in place.
If contact by letter fails a telephone appointment should be booked. NHS England has reported a 8.8% DNAR in the last quarter of 2017/2018 and any attempt to decrease this number would be of benefit [7]. Better online documentation would allow us to compare our statistics to the national average and help develop strategies for improving patient follow-up.
The eDN ePR applications are trust-wide operating systems and are regarded as the point of access for all patients' medical data – however, in this audit, most of the clinic letters were not uploaded to the system. As the further digitalisation of the NHS occurs uploading of all letters to appropriate online databases become an imperative for a well functioning service.

Conclusion

This audit showed that the provision of Uterine Fibroid Embolisation by the radiology department in Kent & Canterbury Hospital is well within the standards recommended by NICE. The service provision can be improved by better follow-up and online digitalisation of follow-up appointments and letters.

Implementations

Recommendations for change:

1. Better guidance on uploading follow-up correspondence and clinic letters for ward clerks and medical secretaries or systems in place with automatic digitisation of clinic and appointment letters.
2. Better follow up: Booking a 4-6 week appointment and an 5-6 month appointment on discharge. If not possible, to book a telephone follow-up.

References

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