Nursing care for women undergoing Uterine Fibroid Embolisation

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UFE - Background

- First used in late 1970s to control post-partum bleed
  - effective in controlling symptoms 80-94%
  - fewer complications
  - over 7,000 women treated
UFE - Reputation

Reputation of being ‘quick and safe’
UF - What are they?

- Common growths in female population (20 - 50%)
- Smooth muscle in origin
- Predominantly benign
- May be associated with reproductive disorders
- Asymptomatic fibroid do not require treatment
UF - Type of Fibroid

- Intramural - common and develops in the wall of uterus
- Subserosal - develops under outside covering of uterus
- Submucosal - develops under the inner lining of the uterus and is least common and problematic
UF - Population affected

- Increased incidence between the ages of 35 - 49
- Afro-Caribbean women higher risk
- Generic and hormonal factors
UF - Symptoms

- Abnormal vaginal bleeding (menorrhagia)
- Pelvic pain
- Pelvic pressure (large fibroid) on bladder, bowel, kidneys causing increases urination, constipation
- Infertility, recurrent spontaneous abortion, pre-term labour
UF - Diagnosis

- Physical exam (bimanual-abdomen)
- Ultrasound
- MRI
- Hysterosalpingogram
- CT
- Hysteroscopy
UF – Diagnosis (Con’t)

Ultrasound
UF – Diagnosis (Con’t)

Magnetic Resonance Imaging
UF – Diagnosis (Con’t)

Hysterosalpingogram
UF - Treatment options

- Symptoms management
  - NSAID
  - Hormone Therapy

- Surgery
  - Hysterectomy
  - Myomectomy
UF - Treatment options (cont)

Hysterectomy
UF - Treatment options (cont)

- Endometrial ablation
- Thermal ablation of uterus fibroid
  - percutaneous insertion of laser fibres
  - focussed US
- Uterine Fibroid Embolisation (UFE)
Uterine Fibroid Embolisation (UFE)

- Less invasive
- Non-surgical
- Performed by Interventional Radiologists
- Blood flow in the right and left uterine arteries is occluded and the fibroids are deprived of their blood supply
- Occlusion leads to necrosis and death of the fibroids
UFE - Indications

- Referred by gynaecologist
- Symptomatic patients who have failed other therapy or do not wish to have surgery
**UFE – Contraindications**

- Coagulation disorder or other contraindication to angiography
- Infection
- Other uterine pathology e.g. endometriosis, adenomyosis, cancer
- Patients who desire fertility and have exhausted other alternatives
UFE – Before Procedure

- Pelvic US TA/TV or MRI
- Excluding malignancy
- Gynaecological examination - reviewed
- Discuss with interventional radiologist
- Procedure explained
- Patient information leaflet
- Consent
THE ROLE OF THE IMAGING NURSE
**UFE - Patient preparation**

**Hammersmith Hospitals NHS Trust**

**Directorate of Imaging**

**HAVING A UTERINE FIBROID EMBOLIZATION**

**Information for patients**

---

**Date of Last Menstrual Period (LMP):**
- **Date of LMP:** __________
- **Pregnancy Test:**
  - **Positive:** __________
  - **Negative:** __________

**Fasting:**
- **No solid food for 4 hours prior to procedure.**
- **Clear fluids offered up to 2 hours prior to procedure, then nil by mouth.**

**Blood Test:**
- **INR:** __________
- **APTT:** __________
- **Creatinine:** __________
- **Blood Test:** __________

**Diabetes:**
- **Yes:** __________
- **No:** __________

**Platelets:**
- **Level:** __________
- **Reference Level:** __________

**Documented:**
- **I.P. Checklist Completed:** __________
- **Procedure discussed and documented in medical notes:** __________

---

**Type:** UTERINE FIBROID EMBOLIZATION

**Time:**
- **Type:** __________
- **Time:** __________

*Appointment times are approximate and are subject to change, but we will keep you informed. Please inform us of any problem with the appointment.*

**Please inform Imaging Department of any abnormal results.**

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**Only for female patients of child bearing age:**

- **Uterine catheter in place:** __________
- **IV access in situ:** __________

**Fasting:**
- **No solid food for 4 hours prior to procedure.**
- **Clear fluids offered up to 2 hours prior to procedure, then nil by mouth.**

**Filling:**
- **No fluid for 4 hours prior to procedure.**
- **Clear fluids offered up to 2 hours prior to procedure, then nil by mouth.**

**The max. intake of clear fluids between 4 and 2 hours preprocedure is 1 litre only.**

---

**Publishing:**
- **120 - 400 ophthalmic times are approximate, and are subject to change, but we will keep you informed. Please inform us of any problem with the appointment.***

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**Volume Reference level**
- **< 1.2:** __________
- **2.2 - 29.0 seconds:** __________
- **60 - 125 umol/l:** __________
- **9.0 - 12.0 seconds:** __________

---

**Documentation:**
- **I.P. Checklist Completed:** __________
- **Procedure discussed and documented in medical notes:** __________

**Signature:** __________
- **Print:** __________
- **Date:** __________
- **Time:** __________
UFE - Patient preparation

- Imaging nurse visits patient prior to procedure
- Assessment
- Patient preparation instruction
- Analgesia
- Antibiotic
Nursing documentation

DIRECTORATE OF IMAGING
RADIOLOGY NURSING PROCEDURE RECORD

Date: ________________________________  Name: ___________________________________
Procedure: ____________________________  Hospital No.: ______________________________
Radiologist: ___________________________  D.O.B.: _____________  Age: _____________
Scrub Nurse: __________________________
Anaesthetist: __________________________  Sex:  M / F  Ward: ____________

Pre-procedure visit/information
Yes / No

Pre-procedure Assessment

Name Band checked by: _______________________
Consent obtained:  Yes / No
Pre-medicated: _______________________

Blood results

Hb ________  WBC  ______  Platelets ________
PT_________  APTT  ______   TT    ___________
Allergies: _____________________________
Fib ________ INR     ______
Nil by mouth from: ______________________

Language Spoken: English       Other___________

Translator:   Yes / No   Translator Present: Yes / No

Pedal Pulses:   Rt ______       Lt ______

Relevant Medical History

Relevant Drugs

Drug Sensitivities:

IV access _______________________________  Diabetic:  Yes / No
Blood Sugar Level: _______ mmol/L

Asthmatic:  Yes / No

Infusions: _______________________________  Infectious status:

TIME

Arrival in Radiology ______________________
Ward Called: ____________________________

Started: _____________  Finished: ______________
Collected ____________  Destination ____________
Patient admits to ward

Seen by radiologist - consent

Prepare for procedure e.g. NBM, shaved

Collected by IA to Imaging

Imaging nurse received patient and hand over from ward nurse

Check patient

Medication - Diclofenac suppository 100 mg
Conscious sedation
Local anaesthesia
Femoral puncture
Pelvic arteriogram performed
Use of microcatheters and guidewires to select uterine arteries
PVA
Final uterine arteriogram
UFE - Arteriogram
UFE - conscious sedation

- Adult
- Sedation policy

To allow gastric emptying:
- Solid food up to 4 hours prior to procedure.
- Clear fluids up to 2 hours prior to procedure.
- Nil by mouth.

American Society of Anaesthesiologists Task Force on Sedation and Analgesia by non-anaesthesiologists (1996) Practice guidelines for sedation and analgesia by non-anaesthesiologists
UFE - Peri-procedure

- Conscious sedation
- Pain management
  - pain assessment
- Monitor vital signs
- Comfort and reassuring patient
- Documentation
### PERI-OPERATIVE PROCEDURAL OBSERVATIONS

**ECG, Blood Pressure, Pulse, Respiration, O₂ Saturation, O₂, Temperature and Medication Recordings**

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**Blood Pressure**

- SBP: 170
- DBP: 70

**Pulse**

- HR: 60

**Respiration**

- RR: 15

**O₂ Saturation**

- SpO₂: 90%

**ECG Rhythm**

- Normal

**DRUGS**

- Lidocaine: 100 mg
- Buscopan: 10 mg
- Fentanyl: 200 mcg
- Hypnovel: 5 mg
- Heparin: 1000 units
- Contrast: Batch no.

### NURSING INTERVENTIONS

**Intra Procedure**

- Respiratory: Self Ventilating
- Cardiovascular: Refer to observation chart
- Neurological: Conscious level: Drowsy
- Pain: Analgesia: Pain scale 0 – 5: 2
- Hygienic: Ultrasound guidance: Yes
- Nursing Documentation: 

**Post Procedure Evaluation**

- Respiratory: Self Ventilating
- Cardiovascular: Infusion: _______________________
- Neurological: Conscious level: Full awake
- Pain: Pain free
- Hygienic: Ultrasound guidance: Yes
- Nursing Documentation: 

**Respiratory**

- O₂: __________ L / min
- O₂ Mask: __________
- Nasal cannula: __________
- Ventilated: __________

**Cardiovascular**

- Infusion: _______________________

**Neurological**

- Conscious level: Fully awake
- Sedation: Comfortable
- Local Anaesthesia: Pain scale 0 – 5: 2

**Pain**

- Analgesia: Pain free
- Sedation: Comfortable
- Local Anaesthesia: Pain scale 0 – 5: 2

**Hygienic**

- Ultrasound guidance: Yes
- Fluoroscopy: __________
- Neuralgia site: __________
- Pedal pulses: Right and Left
- Drainage: __________
- Specimens taken: __________

**Respiratory**

- Self Ventilating
- O₂ L / min: __________
- Chest X-Ray: __________
- Intubated: __________
- Ventilated: __________

**Cardiovascular**

- Infusion: _______________________

**Neurological**

- Conscious level: Fully awake
- Full awake: __________
- Drowsy: __________

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UFE – Pain Management During Procedure

- Pain assessment
- Medications
  - Hypnovel IV (Midazolam)
  - Diamorphine IV
  - Zofran IV (Ondansetron)
  - Paracetamol infusion
UFE - Post procedure

- Recovery
- Pain management
- Anti-nausea medication
- Activities - bed rest
- Education - patients, ward nurse
UFE - Post procedure pain

- Start shortly after 2nd uterine is occluded
- Worsen for 2 hours then plateau for 6-8 hours
- Improvement over next 12 hours
- Improve over next several days
UFE - Post procedure Pain Management

- Diclofenac 50mg oral 8 hrly
- Tramadol 50mg oral 6 hrly
- Anti-emetic. Zofran or Cyclizine
UFE - Post Procedure Syndromes

- Pyrexia, nausea and vomiting
- Pelvic pain
- Could last up to 24 - 48 hours and up to 7 days
- Worse with large and multiple fibroids
UFE - Complications

- Groin haematoma
- Pelvic pain
- Uterine infection leading to hysterectomy (0.5 - 2%)
- Fibroid impaction
- Premature ovarian failure (menopause) (1 - 5%)
- Non-target organ ischaemia
- 2 reported deaths related to infection
UFE - Discharge instructions

- Femoral instruction site care
- Contact number
- Follow-up appointment
- Pain control
- Anti-emetic
- Shower
- Nothing in vagina for 2-3 weeks (no sexual intercourse, no tampon)
UFE - Benefits

- Treats all fibroid simultaneously
- Permanent infarction without regrowth
- Minimally invasive
- Preserve options for other therapies
- Effective in controlling bleeding
- Significant uterine volume reduction
- Shorter recovery times
UFE - Benefits (cont)

- Clinical success 80 - 94%
- Average reduction of fibroid volume 41 - 64%
- Reported pregnancy post UFE
UFE - NICE Guidelines

July 2003

Remains uncertain over safety and effectiveness

Both gynaecologists and radiologists are involved in the decision to carry out procedure

BSIR Registry

Systemic review
UFE - Conclusion

- Good short term results
- Require long term follow-up
- Need to carry out RCT
- Effect on pregnancy
References

Walker, WJ – Uterine Artery Embolisation for Symptomatic Fibroids: Clinical Result in 400 Women with Imaging Follow-up


National Institute of Clinical Excellence (NICE) – Uterine artery embolisation for fibroids, 2003