Office based lower extremity endovascular treatment is Safe, Effective and Cost-saving: How to prevent operator COI and patient abuse

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disclosures

• SPEAKER - Abbott, GORE, Spectranetics, Covidien
• MEDICAL ADV BOARD - Abbott
• STOCK - Profusa, Thermopeutix

"...PAD treatments were largely done in hospitals, which could determine who was best qualified to perform the procedures as well as regularly review outcomes..."

"...the evidence base is not as clear [on endovascular therapy for PAD]..."

Assessment of success, failure and progress in the provision and safety of patient care relies on information on the status of care

METRICS

• Structure metrics: assess infrastructure
• Process metrics: assess delivery of care
• Outcome metrics: assess results

Before the procedure
During the procedure
After the procedure

• Patient volume
• Number of operators & staff
• Growth

4 vascular surgeons, 1 room, 4 recovery pods (2 beds, 2 recliners)
Before (SELECTION)

- Clinical evaluation
- Preoperative imaging (ABI, TBI, duplex w/o CTA/MRA)
- Evaluation of perioperative risk assessment and procedural complexity (access site, lesion anatomy)
- Discussion with patient about sites of service

During the procedure

- WHO safe surgery protocols
- Patient ID, procedural consent, site marking, time out, etc
- US-guidance access
- Procedure
- Access site closure

After the procedure

- 1:1 or 1:2 recovery (2-3 hours)
- Access site, Vitals, Limb perfusion, PO intake
- Review procedure (images) with patient and family
- Secure outpatient follow-ups
- Review all post-procedural home care
- Evaluation forms (facility and personnel)
- Next day personalized call

Methods

- A retrospective review of consecutive cases in an OBS performed by multiple operators (all vascular surgeons)
- Major complications were defined as any clinical conditions requiring acute hospital-based care
- Minor complications were resolved on-site.
- Additional hospital-based care was defined as:
  - emergent if within 6 hours, urgent within 24 hours of procedure, and elective after 24 hours.

Results

- August 2013 to July 2014, n=265
  - 43% (n=115) venous, 57% (n=150)
  - CLI 62% (n=93), life-style limiting claudication 38% (n=57)
  - Interventional arterial procedures:
    - Aorto-iliac 20% (n=30)
    - Femoro-popliteal 47% (n=70)
    - Tibio-peroneal 20% (n=30)

- Mean follow-up of 13.5 months
- Mean rutherford class change was -1.8
- Mean procedure per patient was 1.3
- Mean global reimbursement per intervention $7267.80
- National 2014 Medicare DRG avg $14,599
Complications

- 2 major complications
  - Retroperitoneal hematoma and access site dissection
- 4 minor complications
  - 2 pseudoaneurysms, transient hypotension and brachial access occlusion.

Hospital-based care

- 10 patients required additional in-hospital therapy
- 4 electively (>24 hrs)
- 6 urgent (<24 hrs)
- 0 emergent (<6 hrs)

Conclusions

- With appropriate patient selection, oversight and standardized protocols, OBIS are safe and cost-effective
- **URGENT** Standardized accreditation process (i.e. OEIS)
- Safety requirements
- 'Safe surgery' protocols
- Credentialing/Training
- Peer-review
- Outcome tracking systems (i.e. medstreaming)
- Populational-based projects (joint project w/hospitals)