DOWNSTATE
HEALTH SCIENCES UNIVERSITY

Injection Timeouts for Office Based Spinal Interventional Procedures

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Issues

- **Educational and Practice improvement exercise**
- To set up a simple reproducible protocol for Office based Spine procedures
- Office based spinal procedures have exploded in last 10-15 years
- Lack of supervision/protocols
- To eliminate mistakes
- Minimize near misses
- Foster a culture of safety

- Wrong patient, wrong level, wrong side, and wrong site surgery
- Preoperative verification protocols (i.e. Universal Protocol, routine Time-Outs, and using the 3 R's (i.e. right patient, right procedure, right level/side): implemented in 2004
- Time outs have reduced right patient/right procedure
- WLS and WSS still occur with an unacceptably high frequency
- Common in spine and ortho procedures

- Human error
- Surgeon/staff fatigue
- Rushing
- Emergency circumstances
- Lack of communication
- Hierarchical behavior in the operating room
- Failure to "speak up".

- Wrong level cervical diskectomy: 6.8 to 7.6/10,000 cases/ year

  (Jhawar *et al*. 2007, Ammerman and Ammerman 2008)
- Wrong level lumbar diskectomies occurred in from 4.5 to 12.8/10,000 cases/year.
- Wrong Site spine surgery (WSSS): second most frequently encountered adverse event Frequency:12.8%

  (1995–2005 Joint Commission Sentinel Event Statistics Database, Devine *et al*. (2010).

MEDICOLEGAL SUITS AND COSTS OF WRONG SITE SURGERY

- Twenty-one percent of hand surgeons, 50% of spinal surgeons, and 8.3% of knee surgeons have reported performing at least one wrong-site surgery during their career.
- 73 (13%) patients subjected to WLS experienced permanent disabilities, resulting in legal suits, and or settlements
- Impact of WSSS in England (all medicolegal spine cases 2012- 2017), identified 978 spine surgery claims of "clinical negligence" brought against the NHS (i.e. against Orthopedists and Neurosurgeons). The cost over 5 years was 535.5 million pounds; notably, the case number/costs increased over time. (Machin *et al*.- 2018).

- AAOS Sign Your Site initiative, JC-mandated UP, and WHO Surgical Safety Checklist guidelines are specific in content.
- Implementation of these guidelines can vary widely across institutions, hospitals, and surgery centers.
- Even when protocols are implemented, adherence may not be consistent within a given system. This helps explain why wrong-site surgery continues to occur.

Challenges

- No protocol exists for Office based procedures
- Office based spinal procedures have exploded in the last 10-15 years
- Inadequately trained staff
- High staff turnover
- Rotating residents with varying different skill sets/interests
- No clear line of responsibility
- High patient volume
- Quick turnover time

Challenges

- R/L side
- Multiple levels
- Language barrier
- Different ethnicities/nationalities/accents
- Geriatric Patient population
- Prone position
- Use of fluoroscopy
- Trainees
- Pregnancy
- Anticoagulation
- Lack of trained staff
- High Volume
- Variety of procedures
- Considered simple procedures

Brainstorming session

- Stakeholders
  - Residents
  - Medical Assistants/PA
  - X ray Technician
  - PA

Impacts

- Was able to produce a Universal protocol and standard form to be used in office based spinal procedures
- Time out by the team
- Designated the x ray tech to initiate the time out
- Shared with other providers (ex-residents) in the community to minimize near-misses/mistakes

Outcomes/Impact

- Significantly reduced near-misses
- All the team members realized
  - the importance of the timeout
  - Impact on patient care
  - Seriousness of WSS, WLS, Wrong patient and Wrong procedure
  - Medico-legal and financial consequences for the provider
  - Can happen to even the most careful physician

Conclusion

- Leadership, commitment, and vigilance are critical to improve patient safety
- Validated safety processes are used in all settings including effective team communication, checklists, and routine collection and analysis of quality and safety data.

Thank you!