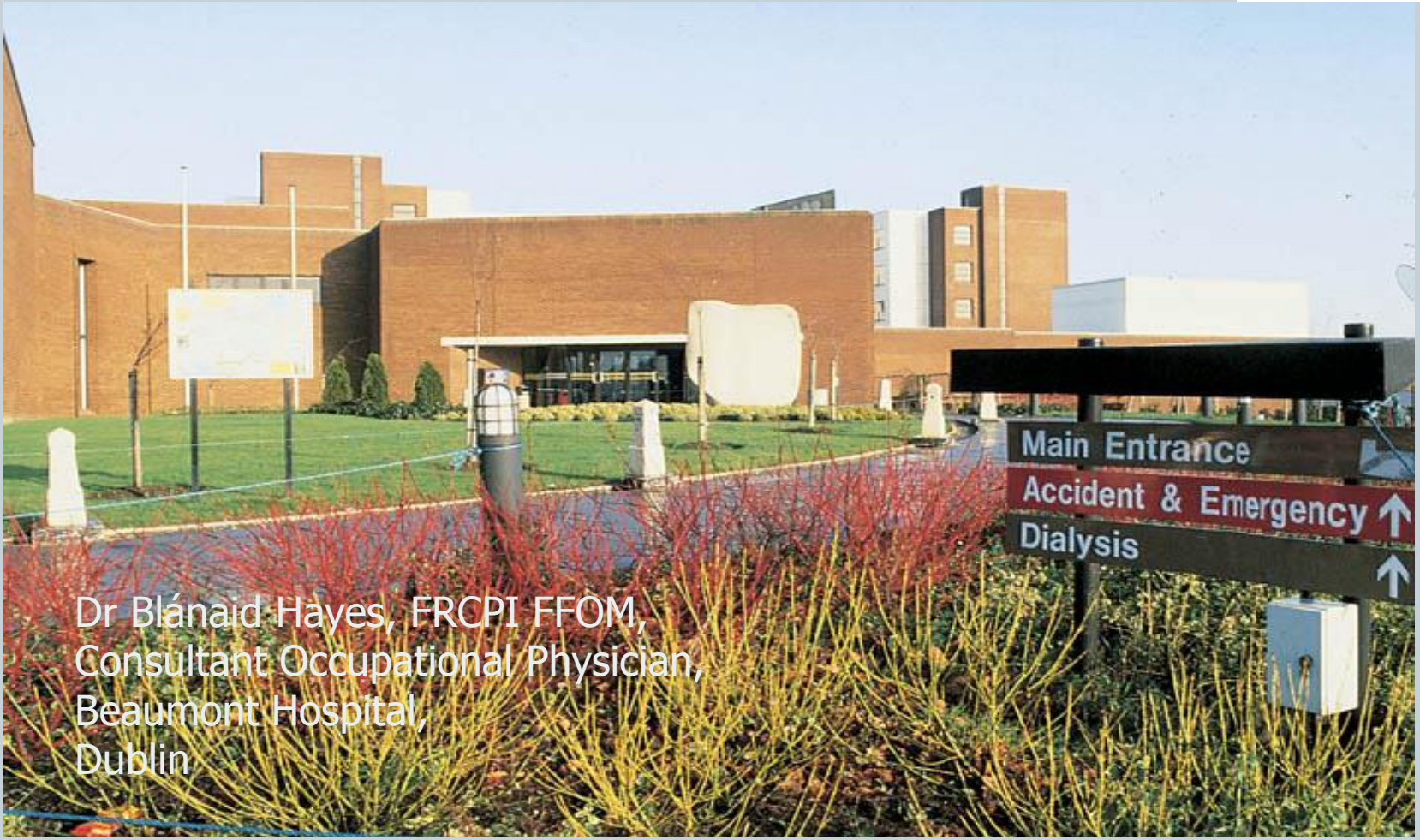
Implementation of Good Practice in a Dublin Hospital



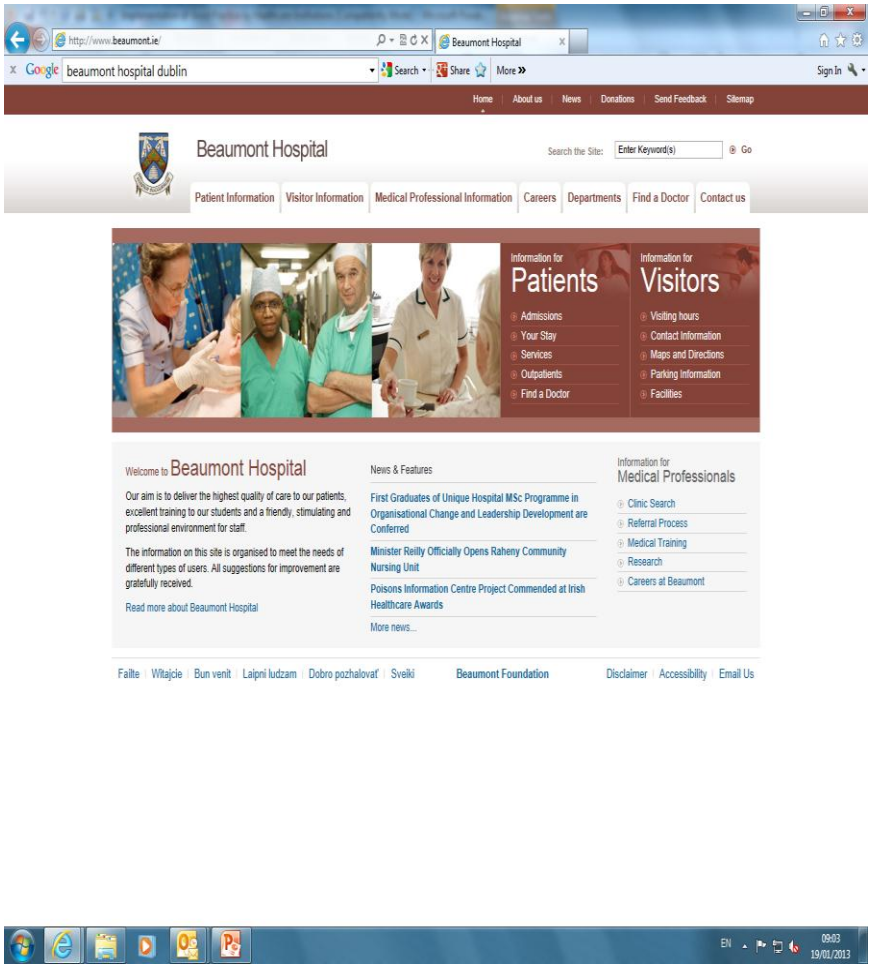
Dr Blánaid Hayes, FRCPI FFOM,
Consultant Occupational Physician,
Beaumont Hospital,
Dublin

Implementation of Good Practice in a Dublin Hospital

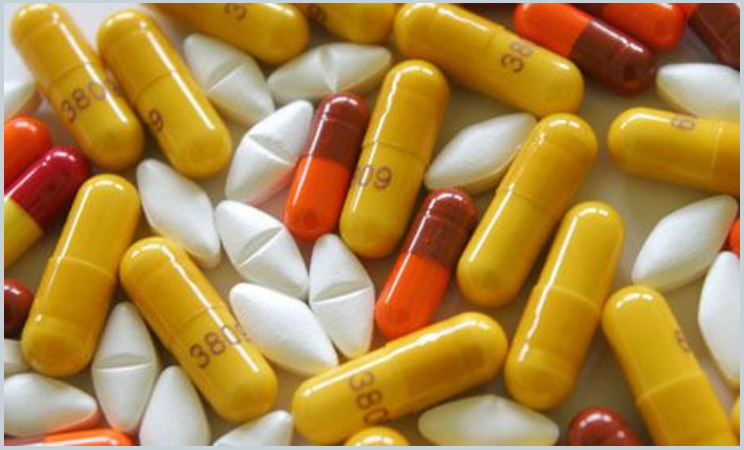
- Introduction to Beaumont Hospital
- The journey towards compliance
  - Where were we?
  - Where are we now?
  - Where are we going?
- Challenges
  - Technical
  - Systemic
  - Human
- Conclusion

Implementation of Good Practice in a Dublin Hospital

- 820 beds
- 3000 + staff
- Designated Cancer Centre
- National Referral Centre for neurology, neurosurgery, renal transplantation, cochlear implantation



Needlestick injury: our experience



- >2000 NSI (excluding mucocutaneous exposures) over a period of 17 years (1996 -2012)
- No seroconversions
- Biggest problem in our experience:
  - psychological morbidity (including a case of PTSD)
  - side –effects of PEP

The journey to compliance

- Where have we come from?
  - Basic technology
  - Reliance on education and human behaviour
- Where are we now?
  - Sophisticated technology
  - Diverse mechanisms of action
  - Not always intuitive so education essential
- Where are we going?

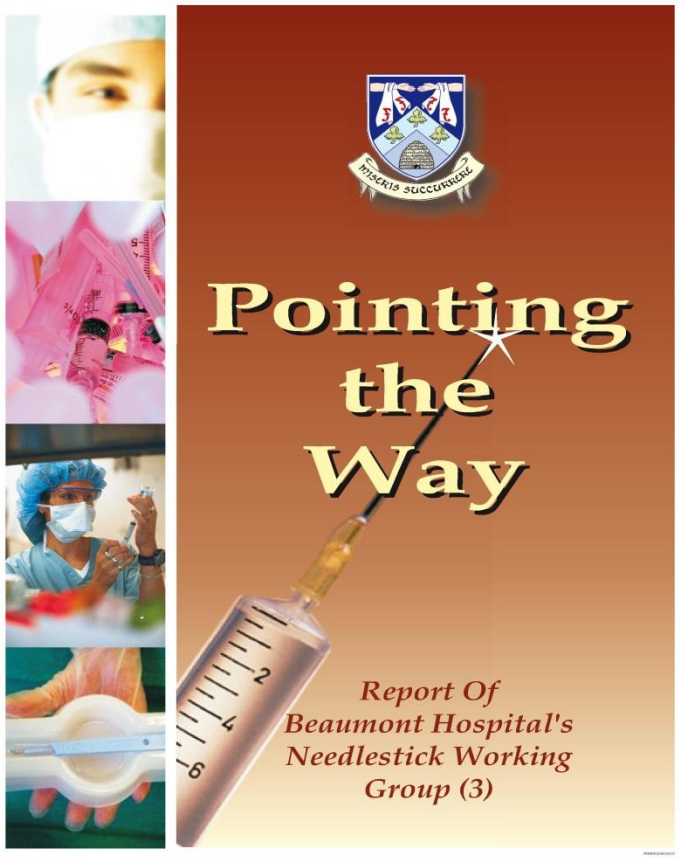
Where have we come from?

- 1990's:
  - Engineering controls not cost effective.
  - Injuries from cannulas and glucometer testing
  - Simple devices and solutions
    - Ported cannula
    - Lancet

And.....

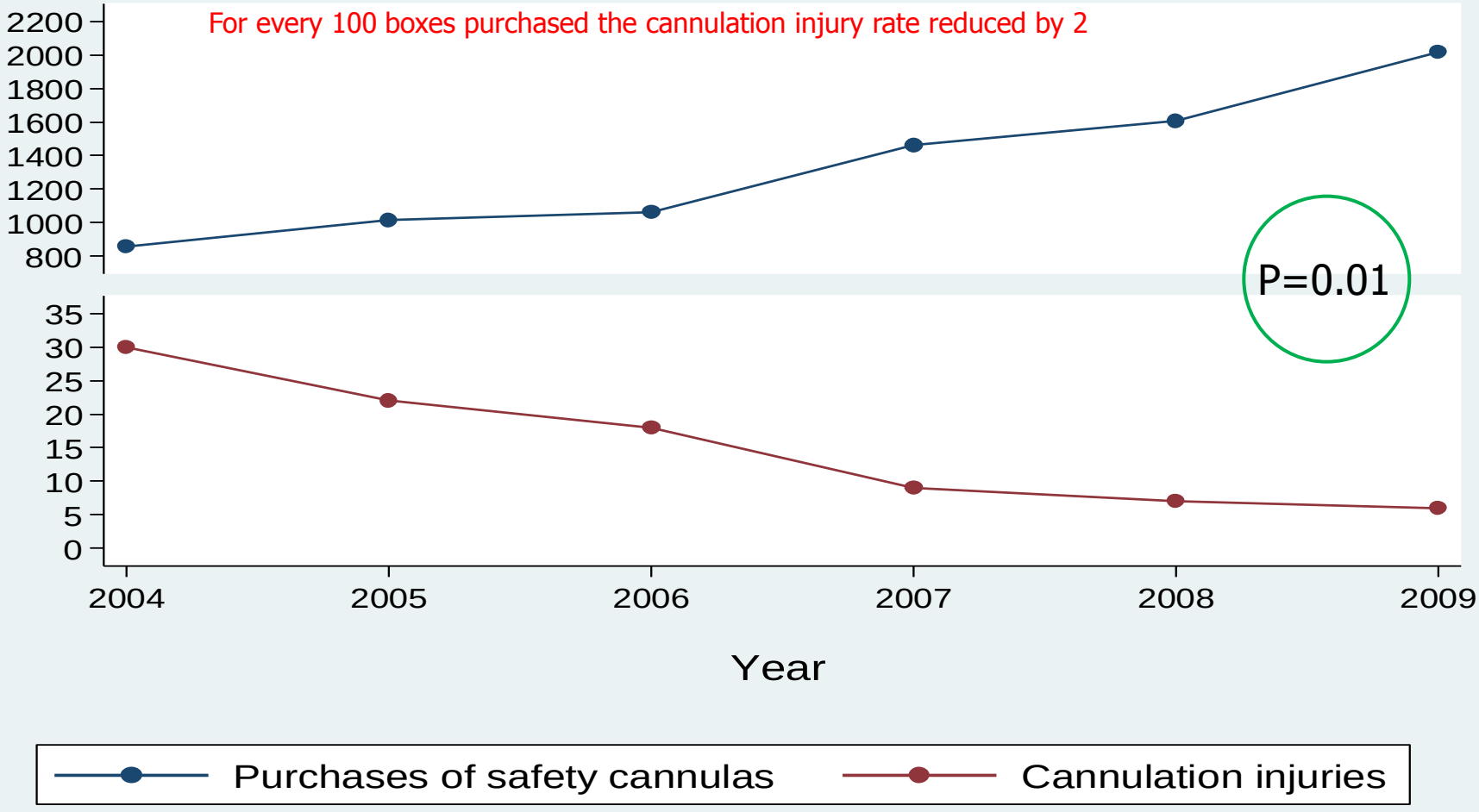
- 2000's:
  - Growing body of evidence supporting the efficacy of safety devices
  - Line access technology greatly reduced associated injuries
  - Safety cannula 2003
  - Alternative in 2004
  - No reduction in cannulation injuries in 2005

Pointing the Way (2007)

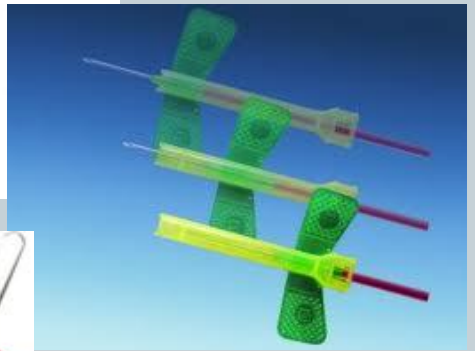


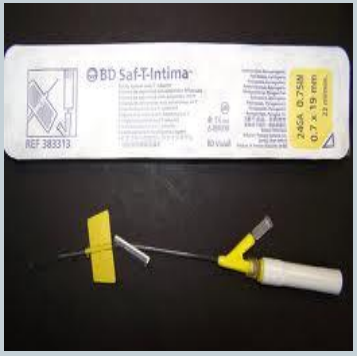
- Findings:
  - Clinicians with unsafe practices
  - Varied awareness of sharps safety
  - Unengaged staff
  - Ordering procedures
  - Local attitudes
- Recommendations:
  - Safety cannula (2/12 transition)

Impact of Engineering Controls on Cannulation Injuries



Where are we now?

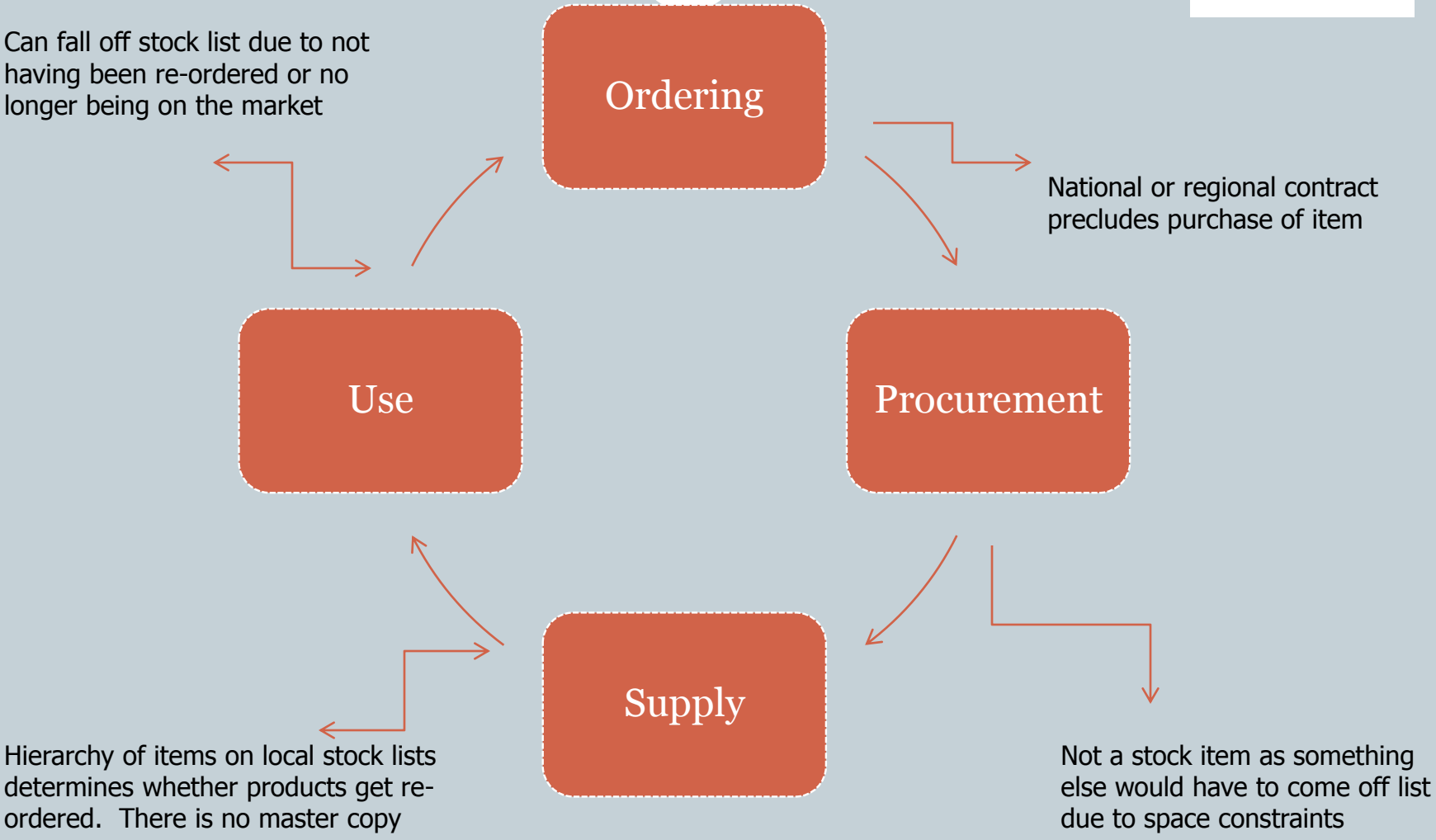




Where are we now and what more do we know?

- Reconvened MDT to consider next steps to be taken to achieve compliance September 2012:
  - New unapproved SEDs available (e.g. safety cannulas)
  - Previously approved SEDs have disappeared (e.g. drawing up needle)
  - Non-safety devices still readily available alongside approved safer alternatives (e.g. infusion butterfly)
  - Approved SEDs not available in some clinical areas (safety butterfly for phlebotomy)
  - Obsolete items reappearing from locally held supplies

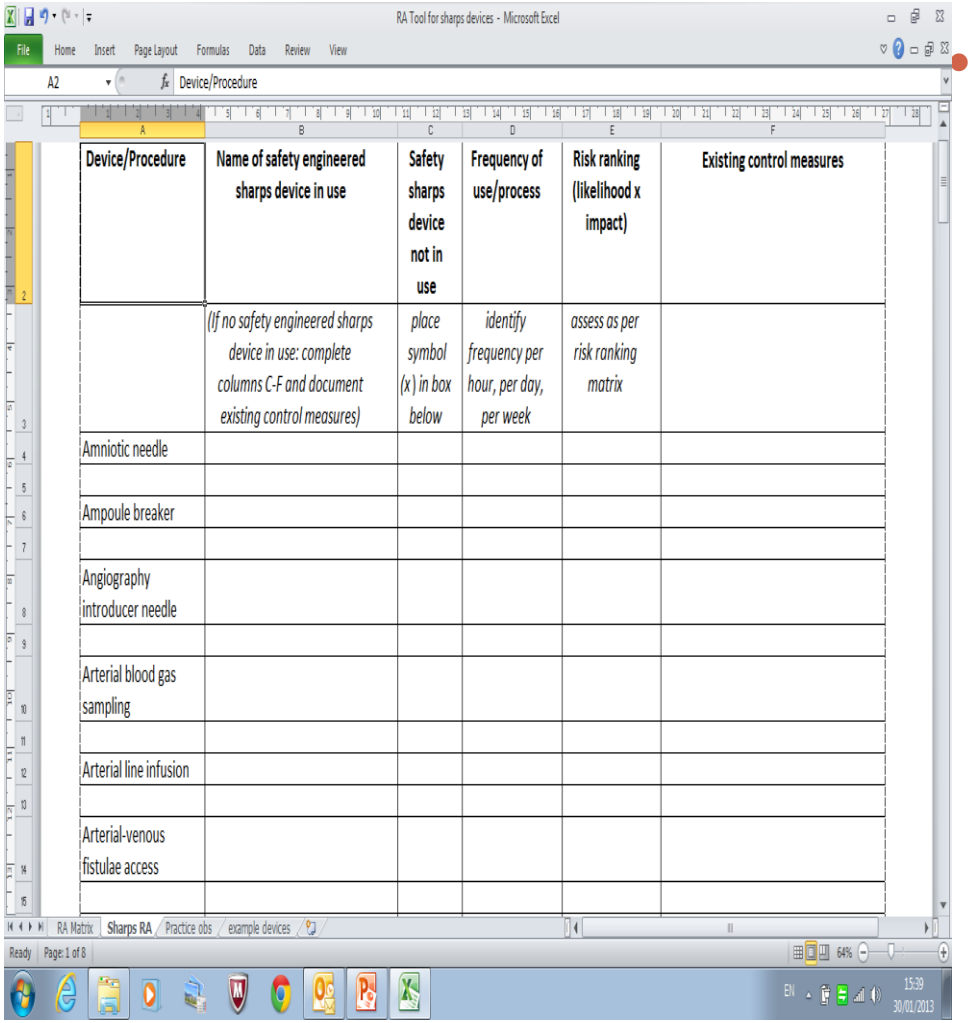
So what can go wrong?



Challenges

- Technical
  - Market unavailability of certain essential items both globally and regionally,
  - Passive devices are most effective & semi-automatic active devices are next best.
  - Better technology with intuitive mechanisms of action should reduce need for education
- Systemic
  - Hospitals can be tied in to national or regional purchasing agreements which can limit choice
  - Procedures for ordering /purchasing new products by Supplies Department need to be clear
  - Local ordering of stock by individual units can vary within the hospital
- Human
  - Adaptation: normalisation of use of SEDs by easy availability (and their unsafe counterparts being less available) will facilitate this
  - Education to improve compliance with instructions for use (as failures here can cause injury).
  - Leadership / good communication by clinical managers to ensure both systemic and human challenges are managed
- **NB**……for some tasks there is no available SED so risk assessment must continue to underpin the management of risk…..

Local Risk Assessment Tool using Health Services Executive's (HSE) **Risk Assessment Matrix**



Device/Procedure	Name of safety engineered sharps device in use	Safety sharps device not in use	Frequency of use/process	Risk ranking (likelihood x impact)	Existing control measures
	(If no safety engineered sharps device in use: complete columns C-F and document existing control measures)	*place symbol (x) in box below*	*identify frequency per hour, per day, per week*	*assess as per risk ranking matrix*	
Amniotic needle					
Ampoule breaker					
Angiography introducer needle					
Arterial blood gas sampling					
Arterial line infusion					
Arterial-venous fistulae access					

Risk assessment tool for sharps developed by Ms Siobhan Prout www.bsap.ie and circulated through the Infection Prevention Society (IPS).

Risk Matrix	Negligible(1)	Minor(2)	Moderate(3)	Major(4)	Extreme(5)
Almost Certain (5)	5	10	15	20	25
Likely (4)	4	8	12	16	20
Possible (3)	3	6	9	12	15
Unlikely (2)	2	4	6	8	10
Rare/Remote (1)	1	2	3	4	5

HSE RA Matrix: impact X likelihood

Conclusion

- EU Directive will help to reduce risk from this important occupational hazard
- We must continue to ask more of engineers / designers to develop better and more passive devices
- Even with good legislation and high quality technology, compliance will not be achieved without addressing systemic barriers in how products are purchased, ordered and used in the clinical setting:
  - Good systems are as important as good law and good tools.
- While toolkits are available to assist, each organisation must assess its own risk and customise its approach to ensure engagement by users