Variation in practice to reduce prosthetic joint infection (PJI) in primary hip and knee arthroplasty

Lee Hoggett, Sophie Rogers, John Ranson, Andrew Sloan Heath Education England North West, East Lancashire NHS Trust

Virtual Wrightington John Charnley Gold Medal Research Meeting 17.6.2021

Introduction & Aim

- Prosthetic joint infection (PJI) has an enormous physiological and psychological burden on patients.
- Strategies to reduce PJI varies between units
- A unified approach may improve outcomes

Aim

To determine current practices used to reduce PJI in primary arthroplasty by lower limb surgeons nationally

Method

- A 14 question survey was designed and circulated within the region via email and nationally via the BOA e-newsletter.
- Answers were collected electronically using Google Forms
- 56 unique consultant responses were received from 19 trusts





British Orthopaedic Association Screen patients for asymptomatic bacteriuria (ASB) pre-operatively?



Provide skin decolonisation preparations pre-operatively? (n=56)



If a positive culture is obtained from the urine screening do you treat this empirically? (n=34)



Screen for MSSA or empirically eradicate it? (n=56)





What antibiotics do you use at induction? (n=56) cefuoxime

4% flucloxacillin alone Fluclox & Gentamicin Teicoplanin alone Teic and Gentamicin

39% of respondents give further doses of antibiotics post-operatively

- 100% of respondents do not routinely catheterise patients pre-operatively
- 100% of respondents do screen for MRSA
- ▶ 100% of respondents use laminar flow theatres

Conclusion

- Our results demonstrate a consensus on the use of laminar flow theatres and the abolition of routine catheter use.
- ASB screening, treatment of positive ASB cultures, and intramuscular gentamicin for peri-operative catheterisation is practiced despite <u>little or no evidence</u> to support their use.
- Multiple antibiotic regimens exist despite little variation in organisms in PJI.
- MSSA screening & treatment is underutilised.