

## **Resistance to Change? Surgical Perspective, Practice and Antimicrobial Stewardship in Routine Inguinal Hernia Repair**

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### **Abstract**

**Background:** Nearly twenty million elective inguinal hernia repairs are performed annually worldwide. International guidelines show no evidence for perioperative antibiotics in either patients at low risk of surgical site infections (SSIs) undergoing open hernia repair or in laparoscopic hernia repair in any context.

**Methods:** A series of 85 day-case inguinal hernia repairs at a central London teaching hospital were evaluated to ascertain rate of prescription of prophylactic antibiotics. Data collected including operative management, comorbidities and use of antibiotics. Patients stratified as high or low risk based on co-morbidities. A survey of 86 surgeons of various grades across several UK hospitals was performed regarding the prescription of perioperative antibiotics.

**Results:** Perioperative antibiotics were prescribed in 80%, 68 patients of routine hernia repairs, only 28%, 24 were considered high risk of SSIs. Fifty-three percent of survey respondents, 46 reported prescribing antibiotics in all inguinal hernia repairs while a further 3%, 3 prescribed antibiotics only in open repairs and 1%, 1 used antibiotics only with mesh. Incongruously, 67%, 58 of respondents felt antibiotics should NOT be routinely prescribed.

**Conclusion:** Rates of antimicrobial prescription seen in elective hernia repair are not concordant with national and international guidelines. Multiple factors contribute to this including personal experience, training, and perceived cost-benefit. This study flagged a degree of resistance to change in prescribing practices and highlighted possible avenues of continuing professional development.

**Key words:** inguinal hernia repair, surgical site infection, antimicrobial therapy