SUMMARY OF:

THE RATE OF GLOVE PERFORATIONS IN ORTHOPAEDIC PROCEDURES: SINGLE VERSUS DOUBLE GLOVING.

A PROSPECTIVE STUDY

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BACKGROUND

Glove breaches compromise the barrier protection needed by surgical gloves to protect from the transmission of bloodborne diseases. The risk of glove breach is higher in orthopaedic surgery due to the nature of the procedures and the use of sharps. This study was intended to determine the rate of surgical glove perforations in orthopaedic surgery, most common causes, and the difference between single and double gloving.

OVERVIEW

All gloves worn by surgeons and first and second assistants in a total of 130 orthopaedic surgeries were analyzed. The gloves were checked prior to the procedure for holes and those found with perforations were not used. After the procedure, the gloves were tested again for any perforations. The majority of the surgical staff practiced double gloving, however, 2% of staff wore only single gloves.

RESULTS

An overall perforation rate of 3.58% was determined (52 holes were found out of 1452 gloves examined). The perforation rate for single gloves was 10.87% and the rate for double gloves was 3.34%. Additionally, the perforation rate for the inner glove of those donned double gloves was only 0.711%. The most commonly cited reason for perforations was shearing.

CONCLUSION

The majority of glove breaches were unnoticed by the surgical team, exposing them to higher risk of bacterial transmission. Double gloving can reduce the risk of glove breach and consequently reduce the risk of bacterial contamination.

References 1. Chan et al., The Rate of Glove Perforations in Orthopaedic Procedures: Single versus Double gloving. A Prospective Study Med J Malaysia 2006;61 Suppl B:3-7

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