

Surgical Prep-Related Burns in Laterally Positioned Hip Procedures

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Abstract : The use of alcoholic surgical prep was recently introduced into the Royal Newcastle Center for elective procedures. In the past 3 months there have been a significant number of burns believed to be related to 'pooling' of this surgical prep in patients undergoing procedures where they are placed in the lateral position with hip bolsters. The aim of the audit was to determine the reason for the burns, analyze what pre-existing factors may contribute to the development of the burns and what can be changed to prevent further burns occurring. All patients undergoing a procedure performed on the hip who were placed in the lateral position with sacral and anterior, superior iliac spine (ASIS) support with 'bolsters' were included in the audit. Patients who developed a 'burn' were recorded, details of the surgery, demographics, surgical prep used and length of surgery were obtained as well as photographs taken to document the burn. Measures were then taken to prevent further burns and the efficacy was documented. Overall 14 patients developed burns over the ipsilateral ASIS. Of these, 13 were Total Hip Arthroplasty (THA) and 1 was a removal of femoral nail. All patients had Chlorhexidine 0.5% in Alcohol 70% Tinted Red surgical preparation or Betadine Alcoholic Skin Prep (70% etoh). Patients were set up in the standard lateral decubitus position with sacral and bilateral ASIS bolsters with a valband covering. 86% of patients were found to have pre-existing hypersensitivities to various substances. There is very little literature besides a few case reports on surgical prep-related burns. The case reports that do exist are related to the use of tourniquet-related burns and there is no mention in the literature examining 'bolster' related burns. The burns are hypothesized to be caused by pooling of the alcoholic solution which is amplified by the use of Valband.

Keywords : arthroplasty, chemical burns, wounds, rehabilitation

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