

British Columbia Major Burns Clinical Practice Guidelines

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INTRODUCTION: Major burns, including those complicated by inhalation injury, are associated with significant morbidity and mortality, and can consume a substantial amount of resources in acute, sub-acute and rehabilitation phases of illness. Much attention has been placed recently on the risks of both under- and over-resuscitation in the first 24hrs of burn care, and how these crucial early hours can affect acute and long-term outcomes.

METHODS: Following PRISMA methodology of systematic reviews, an in-depth search of articles on the early management of burns patients was conducted. Standard definitions for major burns applied (i.e. partial- or full-thickness >20% TBSA any age group, >10% TBSA ages <10 or >50yrs, burns to hands, face, feet, genitalia, joints, full-thickness burns >5% any age, electrical/chemical burns, inhalation injury, burns associated with major trauma).

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RESULTS: After screening 25 articles for eligibility, 8 articles were included for review. A multidisciplinary team of physicians representing specialty services from burns & plastic surgery, trauma surgery, ICU, ER, anaesthesiology, and EMS reviewed content and developed the first set of Major Burns Clinical Practice Guidelines (CPG) for our province. Highlights from these guidelines include use of a resuscitation formula (set starting rate 3cc/kg/TBSA for the first 24 hrs post-burn), strict urine output goals (30-50cc/hr) with selective, early use of colloids to mitigate risk associated with high-volume crystalloid resuscitation, and use of the Lund-Browder system for more consistent estimation of TBSA. Special considerations remain for burns complicated by inhalation and/or electrocution.

CONCLUSIONS: Major burns are associated with significant morbidity and mortality. Recent literature highlights the risk of both under- and over-resuscitation in acute and sub-acute phases. We present the first known BC Provincial major burns CPGs in an attempt to provide more consistent evidence-based, rationale-guided, best practice for rural and urban practitioners.

