

Accuracy in Assessment: Improving Continuity of Care of the Burn Patient
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This literature review was designed to explore the ability of the Emergency Department and Burn Center staff to accurately assess burn wounds and the effect on the initial care and treatment of the burn patient. Incorrect estimation of burn size leads to under- or over-resuscitation of the patient and may greatly affect the overall outcome of the patient. Articles reviewed contained statistical data related to burn assessment or fluid resuscitation including all age groups. Evaluation criteria for the literature review were:

1. Was initial estimation of burn size consistent with subsequent burn center estimation?
2. Was the correct fluid and formula for fluid resuscitation used initially?
3. Was the fluid resuscitation volume appropriate, or in line with the formula and was the fluid amount being titrated correctly based on urine output?
4. What formulas were utilized in resuscitation?

The problem of inaccurate initial assessment is a systemic problem. Statistical data showed consistent incorrect estimation of burn size with subsequent incorrect fluid resuscitation. Three of the five articles reviewed showed a significant amount of over- or under-estimation of burn size, sometimes in excess of twenty-five percent error. In several studies, there was either no defined resuscitation formula or an inconsistent application of the multiple formulas. These inaccuracies led to incorrect fluid resuscitation amounts, in some cases critically affecting the patient's fluid balance and leading to problems with third spacing and compartmentalization. Four general recommendations for practice arise from the reviewed articles:

1. Offer a comprehensive course in burn assessment as a regular in-service for the ED nurses and doctors.
2. Consistent application of a formula would eliminate resuscitation errors.
3. A nurse from the Burn Center should be "on call" for major burns, approximated at greater than twenty percent.
4. Determine nursing responsibilities related to assessment and fluid resuscitation.

References

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