‘Fluid creep’ or excessive fluid delivered to burn patients during early resuscitation has been suggested by several studies from individual burn centers” Shah et al (2019).

Abstract:

INTRODUCTION: ‘Fluid creep’ or excessive fluid delivered to burn patients during early resuscitation has been suggested by several studies from individual burn centers.

METHODS: We performed a Medline search from 1980 to 2015 in order to identify studies of burn patients predominantly resuscitated with lactated Ringers with infusion adjusted per urinary output. Data was abstracted for 48 publications (3196 patients) that met entry criteria.

RESULTS: Higher resuscitation volumes compared to Parkland estimates were reported, but the trend of increasing resuscitation volumes over the last 30 years is not supported by regression of total fluid infused versus year of study. Mean 24h fluid infused for all studies was 5.2±1.1mL/kg per %TBSA. The mean 24h urinary output reported in 30 studies was 1.2±0.5mL/kg per hr. Burns with inhalation injuries (5 studies) received significantly more fluid than non-inhalation injured burn patients (5.0±1.3 versus 3.9±0.9mL/kg per %TBSA). Fluid infused and urinary outputs were similar for adults and pediatric patients. The most striking finding of our analyses was the great ranges of the means and high standard deviations of volumes infused compared to the original Baxter publication that introduced the
Parkland formula CONCLUSIONS: These analyses suggest that burn units currently administer volumes larger than Parkland formula with great patient variability. Individual patient hourly data is needed to better understand the record of burn resuscitation and Fluid Creep.

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