



ELSEVIER



Childhood extravasation injuries: Improved outcome following the introduction of hospital-wide guidelines



Ali M. Ghanem ^{a,b,*}, Abdulrab Mansour ^a, Rebecca Exton ^a,
Jonathan Powell ^a, Syed Mashhadi ^a, Neil Bulstrode ^a,
Gillian Smith ^a

^a Department of Plastic Surgery, Great Ormond Street Hospital for Children, Great Ormond Street, London, WC1N 3JH, UK

^b Academic Plastic Surgery Group, Centre for Cutaneous Research, Blizard Institute, Barts and the London School of Medicine and Dentistry, 4 Newark St, London, E1 2AT, UK

Received 23 September 2014; accepted 13 December 2014

KEYWORDS

Iatrogenic injury;
Extravasation;
Reconstruction;
Plastic surgery

Summary *Introduction:* Extravasation is an iatrogenic injury that may produce soft tissue necrosis requiring surgical reconstruction (Rose et al., 2008) and (Goon et al., 2006).^{1,2} Previous review of extravasation injuries within our hospital showed that early referral to plastic surgeons and washout of high-risk cases lead to favourable outcome in 86% of patients (Gault, 1993).³ Hospital-wide guidelines were introduced in 2005. This paper closes the audit loop by evaluating extravasation injuries outcome following the introduction of these guidelines.

Methods: All patients referred to the plastic surgery department for extravasation injuries between October 2008 and October 2009 were reviewed. A favourable outcome was defined as resolution without tissue loss requiring surgical reconstruction. Patients were excluded if they sustained the extravasation in other institution.

Results: A total of 82 extravasation injuries in 78 patients were reviewed during the audit period. Mean age was 3.2 years (Median 0.2 years, Minimum 0 day, and maximum 16.7 years). The injuries were more frequent on the left half of the body (52%) and involving the upper limbs (59%). Mean time to referral was 8 h, with 60% of patients referred within 6 h of the injury, 30% in 6–12 h, and 10% referred after more than 12 h 26% of the injuries required washout treatment - the rest was treated conservatively. Tissue necrosis occurred in 3 cases (4%) but required no surgical intervention due to the small area affected.

* Corresponding author. Academic Plastic Surgery Group, Centre for Cutaneous Research, Blizard Institute, Barts and the London School of Medicine and Dentistry, 4 Newark St, London, E1 2AT, UK. Tel.: +44 77 64 18 44 77 (mobile); fax: +44 20 7882 7171.

E-mail address: a.ghanem@qmul.ac.uk (A.M. Ghanem).

Conclusion: Our audit showed an improved outcome of extravasation injury following introduction of hospital-wide guidelines of early referral to specialist team and washout of high-risk cases.

© 2015 British Association of Plastic, Reconstructive and Aesthetic Surgeons. Published by Elsevier Ltd. All rights reserved.

Introduction

Extravasation injury is defined as “the inadvertent administration of a desiccant or vesicant solution into the tissue

rather than into the vessel as was intended”.⁴ Invasive access, via a variety of routes and devices, is indicated in the paediatric patient to provide fluids, medications or parenteral nutrition. When such devices fail, leading to the leak of

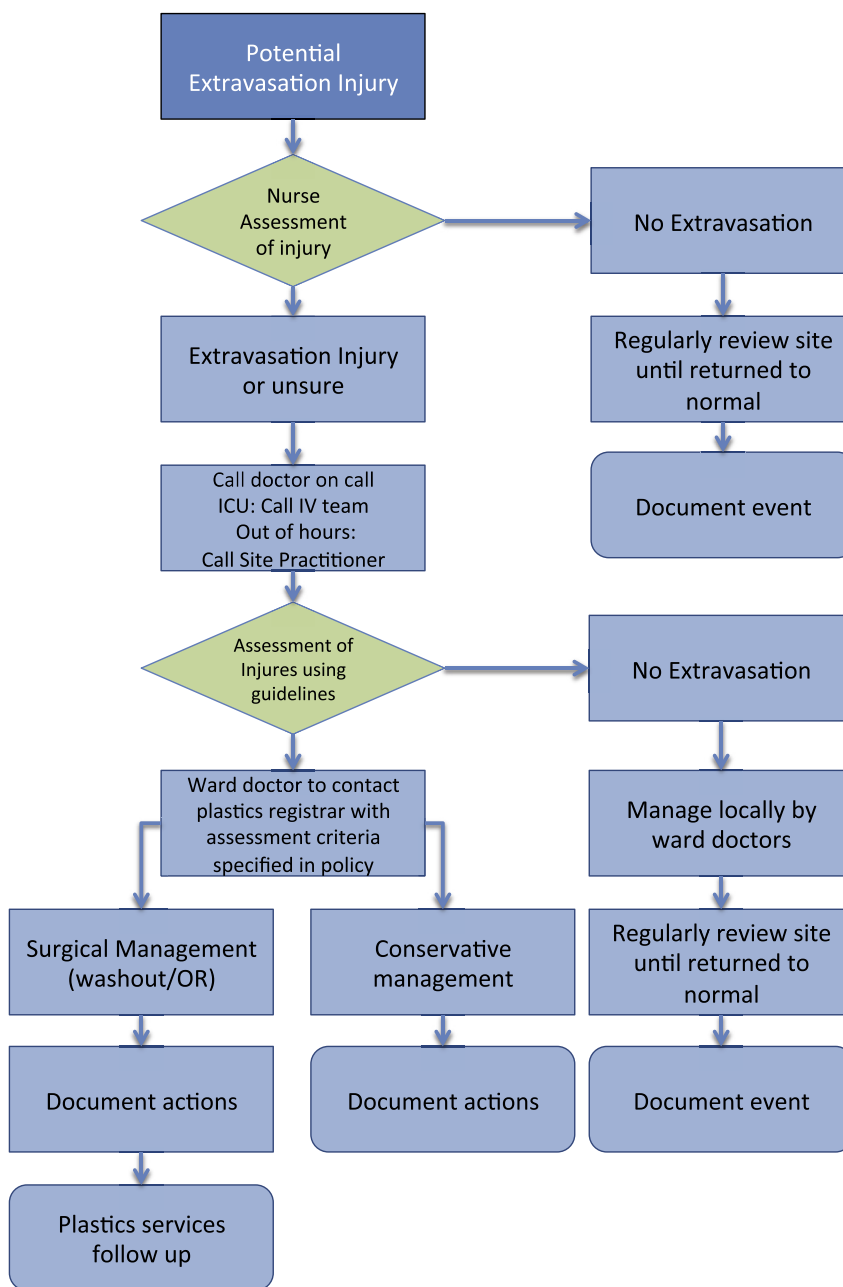


Figure 1 Flow chart summarizing the Guidelines of initial management of extravasation injuries at Great Ormond Street Hospital for Children.

Download English Version:

<https://daneshyari.com/en/article/4118097>

Download Persian Version:

<https://daneshyari.com/article/4118097>

[Daneshyari.com](https://daneshyari.com)