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Letter to the Editor

Missed appointments (DNAs) among the burns patient population☆

Dear Sir,

There is very little published literature looking at missed appointments (DNAs) amongst the burns patient population. It is known that superficial partial thickness burns which normally heal within two weeks would usually heal with little or no scarring, whereas for deep partial burns, if re-epithelisation does not occur within 14–21 days, hypertrophic scarring may occur [1,2]. In early 2016, our department has introduced a fortnightly Burns Clinic and Burns MDT to enable the latter group of patients to be followed-up and reviewed by a senior clinician, so that early surgical treatment, scar management and psychology referral can be instituted if required.

As part of the burn wound healing time audit in our unit, it was noted that there was a significant number of non-attendance in this group of patients. Based on the NHS Reference Cost in 2016–2017, the unit cost of outpatient attendance per appointment was £120 [3]. In January 2017, the South Tees Hospitals NHS Foundation Trust reported that each missed appointment at our hospital cost an average of £150 in wasted staff time, equipment, medication and cost of rescheduling [4].

We conducted a prospective study over a 3-month period between December 2016 to February 2017 with the aims to firstly, investigate the number of DNAs and the associated factors; secondly, to determine if there was any difference in wound healing time between patients who attended all clinic appointments versus those with at least one DNA; and finally, to identify any potential methods to reduce this DNA rate with a view to save the Trust money and resources. Data including patients' demographic, burn mechanism, depth and size were collected on the day patients presented to our Plastic Dressing Clinic. Patients were phoned 10–14 days post-burn and they were asked "when did you stop needing to wear a dressing" in order to determine the burn wound healing time. Any patients with burns which were not healed were booked into the next Burns Clinic for senior clinician review.

A total of 76 patients were included in our study over this 3-month period, with a mean age of 28 years old (range 4 weeks to 97 years old) and male to female ratio of 1.5:1. Patients that DNA'd were younger with a mean age of 22 years. A total of 250 appointments were allotted to these 76 patients. 11.6% (n=29) of these appointments were not attended. Of the 76 patients, 31.6% (n=24; 10 children and 14 adults) of them had at least one DNA.

In terms of burns size, 29.8% of those who had <1% TBSA burn, 33.3% of those with 1–5% TBSA burn and 50% of those with 6–10% TBSA burn failed to attend at least one of their appointments. There was only one patient in our cohort with an 11–15% TBSA burn who was initially managed at Newcastle Regional Burn Centre and subsequently attended all the follow-up clinic reviews at our hospital.

We found that 44.4% of patients with full thickness burn failed to attend at least one of their clinic appointments. The DNA rates in the group of patients who had superficial, deep dermal and mixed burns were 28.8%, 25% and 30% respectively. One would probably expect more patients with small and superficial burn injuries to miss their appointments but interestingly, the DNA rates also seemed to increase proportionately in patients with larger and deeper burns as well. Our analysis also showed that patients who had at least one DNA had longer wound healing time, with median time of 13 days.

Based on our Trust figure of average £150 per appointment, £4350 were wasted on the 29 DNAs in 24 patients. There are an estimated 500 burns patients known to our department per year. If we extrapolate our data, assuming that about 30% of burns patients would have at least one DNA, this equates to roughly 150 DNAs which would cost our Trust £22,500 per year.

Several factors have been speculated as the leading causes of DNAs amongst burn patients. 42% of the DNA population in our cohort were in the working age group of 25–60 years old who might find it difficult to take time off work. Travel distance is thought to be another reason.

Our hospital is one of the two hospitals which provide Burns Services in the North East of England, with our hospital's catchment drains a wider population of 1.1 million. If the burn injuries are small and have healed well, patients might not bother attending their appointment due to the aforementioned reasons. Similarly, a study by Finlay et al. [5] in patients with minor burns that involved upper limbs found that an increasing proportion of the patients failed to return for review as time from injury increased, with roughly 42%, 30% and 19% of attendance rate at 1, 3 and 6-month review clinic respectively. They concluded that non-attendance at review was most likely due to good recovery based on patients' QuickDASH and BSHS-Brief scores which were collected through intensive postal survey follow-up.

We suggest that patients should be encouraged to cancel their appointments if they feel appointments are no longer required. Our department has also created a burn information

☆ This work was presented as oral presentation at British Burn Association Annual Meeting 2018 — Preparing for a Disaster, Swansea University Bay Campus on 13th April 2018

leaflet with Plastic Dressing Clinic's contact number that can be given to patients who are reviewed, referred or discharged from Emergency Department. It was surprising to note that 10 out of the 24 non-attenders in our study were children. With this group, we encourage attendance by phoning parents for children who were not brought to appointments. If necessary, especially when there is concern about non-accidental injuries or child protection issues, health visitor and patients' GP should be involved if children were still not brought to the subsequent rescheduled appointments in order to protect them and their burn management, as per our Trust "Child Not Brought" policy.

In summary, to the best of our knowledge, this is one of the very few studies that focused on DNAs in burns patients. From the perspective of good patient care and cost-effective analysis, once the decision is made to follow-up patients at Burns Clinic, patients' DNA should be carefully reviewed, particularly in the paediatric group. It should also be bear in mind that missing data commonly reported in Burns research as a result of patients' DNA or loss in follow-up could hamper accurate data analysis and study validity.

Conflict of interest

None.

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None.

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Letter to the Editor

Modified moist occlusive burn therapy may be a superior therapy for severe thermal burns

Dear Editor in Chief,

We read with interest the recent articles in Burns on comparison between moist occlusive burn therapy (MOBT) and moist exposure burn therapy (MEBT) for the management of burn wound. In 2012, Mabrouk found that moist occlusive dressing significantly improved the healing rate of partial thickness facial burns with better long-term outcomes compared to moist exposure dressing. Scar quality was improved in occlusive group. Frequency of changes, pain and patient discomfort were also less with occlusive group [1]. Nevertheless, in 2016, Sharifi-Yazdi found that occlusive dressing was more susceptible to microbial contamination and infections than exposure dressing. Although heavy colonization by skin and wound flora is often seen under certain types of occlusion, clinical infection is not a frequent occurrence [2].

We are writing to share our own clinical experience of using the technique in two patients with molten steel burn injury on the cervicofacial region. In our study, for the first time, we have combined a chitosan-based biogel with a sterile polyethylene film to create a paradigm for the evolution of MOBT in clinical trials. This new therapy we proposed is named modified moist occlusive burn therapy (MMOBT). Compared to the traditional MOBT, sterile polyethylene film effectively avoided the avulsion of new granulation tissue and alleviated the suffering of patients during dressing changes. Furthermore, the transparent film helped to directly and closely observe the change and healing of wounds anytime. Finally, compared to MEBT, the sterile polyethylene film covering could create a relatively closed and moist environment that could accelerate the speed of epithelization. As shown in our letter, two male foundry workers presented with painful burns on their cervicofacial regions after exposure to splashing 1500°C molten steel (Figs. 1A/2A). Following general anesthesia, two patients underwent the ultrasonic debridement (Figs. 1B/2B) and MMOBT (Figs. 1C/2C) successively. At follow-up 1year, both of them had achieved a favorable aesthetic restoration without reconstructive surgery (Figs. 1D/2D).