

Pre-hospital pain management by ambulance staff

SHAW, Deborah, SPAIGHT, Anne, BRIGGS, Maureen, CHRISTOPHER, Sarah and SIRIWARDENA, A Niroshan

Available from Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/13581/>

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version

SHAW, Deborah, SPAIGHT, Anne, BRIGGS, Maureen, CHRISTOPHER, Sarah and SIRIWARDENA, A Niroshan (2007). Pre-hospital pain management by ambulance staff. In: Ambex Annual National Conference, England, January 2007. (Unpublished)

Copyright and re-use policy

See <http://shura.shu.ac.uk/information.html>

Assessing the Impact of Emergency Vehicle Call Out in Instances Where the Patient is Subsequently Not Transported to Hospital.

Debbie Shaw ¹, Jane Dyas ², Niroshan Siriwardena ¹ On behalf of the East Midlands Ambulance Research Alliance

Introduction

Ambulance services are legally obliged to attend emergency '999' and general practitioner (GP) calls unless valid treat-and-leave or dispatch triage protocols are in place.¹ What are frequently referred to as 'inappropriate calls'² lead to fewer resources being available to respond to life-threatening incidents. The problem is even greater in large rural counties where long distances are travelled. Inappropriate emergency calls include a proportion (17%) where patients call for an ambulance but are not transported.³ Patients who sign a not treated/transported form (AS34); known within the service as a "refusal to travel form" ['RTT'] make a subset of up to half of those not transported.⁴

Although we know that over one third of these instances are due to falls, a greater understanding of the reasons behind the phenomenon is required in order to inform the development of interventions to reduce the number of people that are not transported.

In order to address the problem of 'refusal to travel' in a rural county it was essential first to assess the impact of the problem by measuring the rate of the problem and its associated costs. This was done prior to the introduction of Emergency Care [ECPs] so that a baseline figure would be available for any evaluation of the ECP service. It was also considered important background before exploring the reasons why patients were not being transported.

This poster reports on the impact of the problem.

References

1. Volans AP. Use and abuse of the ambulance service. *Prehosp Immed Care* 1998;2:190-2.
2. Department of Health Government Statistical Service. *Statistical Bulletin. Ambulance Services, England: 1998-9*. Bulletin 119/16. 1999. London, Department of Health.
3. Marks PJ, Daniel TD, Afolabi O, Spiers et al. Emergency (999) calls to the ambulance service that do not result in the patient being transported to hospital: an epidemiological study. *Emerg.Med.J.* 2002;19:449-52.

Methodology for assessing costs of RTT

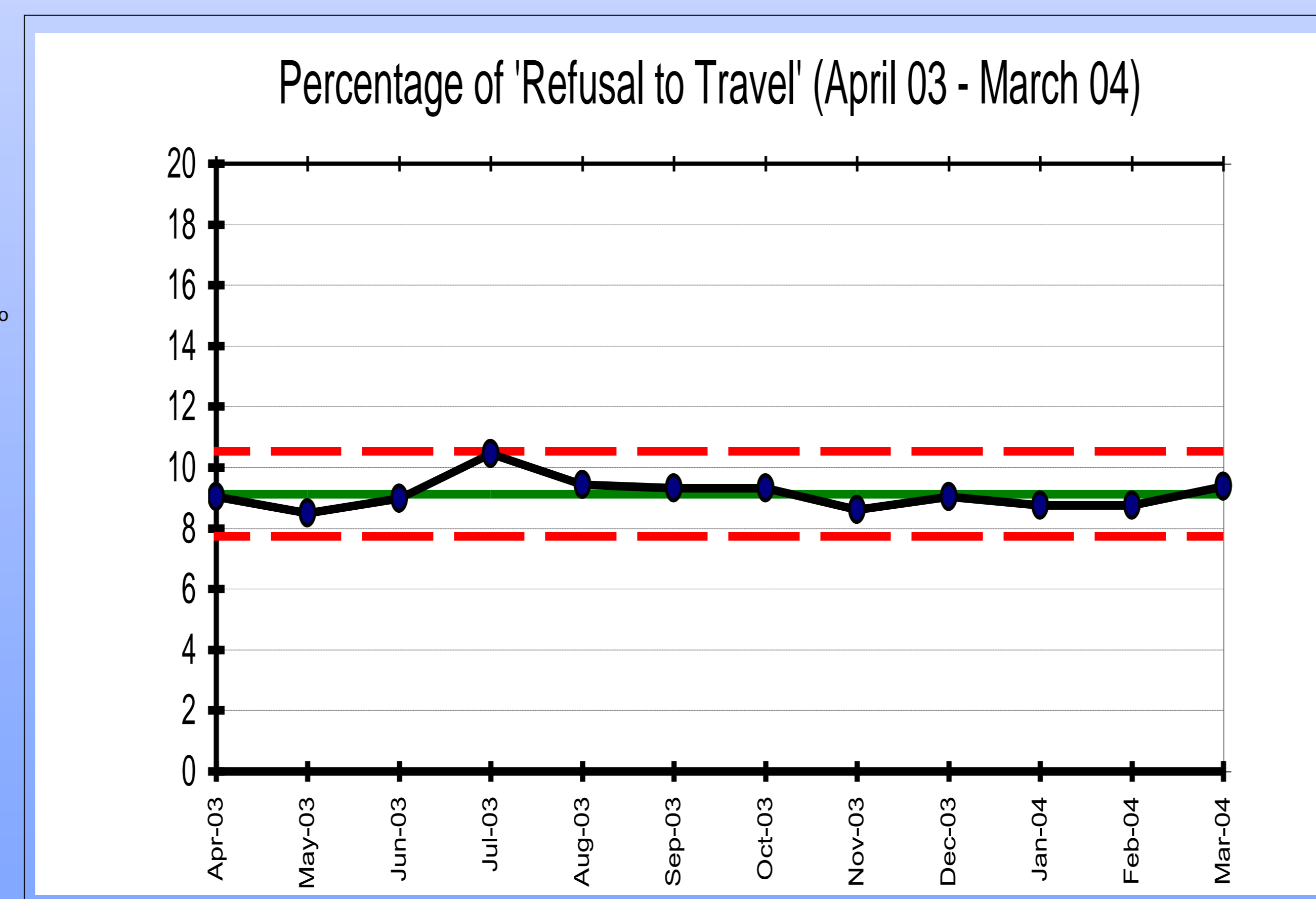
In order to assess the impact and associated costs of 'RTT' the Trust's Computer Aided Despatch (CAD) system was interrogated to ascertain the number of emergency request activations over one year (April 2003 to March 2004) where an ambulance resource arrived on scene but did not transport a patient. This figure was then broken down into three groups; instances where a "Patient not treated/transported" (AS 34) form was completed, instances where a "Recognition of Fact of Death form" (AS 8) was completed and "unknown". The cost of mobilising a fully manned and equipped ambulance was ascertained from the Trust's finance department and used to calculate estimated costs. It should be noted that the calculations were made on the deployment of an emergency ambulance. A break down of type of vehicle deployed was not attempted.

Results

Extent of the problem

An audit of AS34 forms from April 2003 to March 2004 and an interrogation of the CAD system over the same period identified 9067 instances of RTT comprising 9 to 11% of emergency callouts throughout the year with a small peak during July (Figure 1). This was estimated to cost £1,450,900. There were also 4173 other cases where a patient did not travel due to death, refusal to sign a disclaimer, alternative means of transportation taken. The rate of non-transportation overall for the year was 16.85% (Table 1)

Figure 1. Rate of 'refusal to travel' as a percentage of total emergency ambulance requests



Centerline (average): 9.132 (%)
Process Limits: Lower: 7.739 Upper: 10.52

Further information on the this and the qualitative data analysis can be found in :-

Are they really refusing to travel? A qualitative study of pre hospital records

Deborah Shaw , Jane V Dyas , Jo Middlemass , Anne Spaight , Maureen Briggs , Sarah Christopher and A Niroshan Siriwardena

BMC Emergency Medicine 2006, 6:8 doi:10.1186/1471-227X-6-8

Table 1. Rates, time involved and cost of refusal to travel

Total Emergency Responses April 03 to March 04	76635
Total Transportations April 03 to March 04	63650
No. of instances of RTT (AS 34s) after emergency responses April 03 to March 04	9068
Total number of instances of Recognition of Fact of Death (AS 8)	967
Total number unknown category (other)	2950
Rate of RTT as a proportion of total number of emergency ambulance responses Apr 03 to Mar 04	11.83%
Mean time for Emergency call where patient is transported to hospital =	1 hr, 7 mins, 26 secs
Mean time for call with 'refusal to travel' =	37 min 12 sec
Mean time for call where Recognition of Fact of Death (AS8) implemented and deceased left on scene =	1hr, 5 mins, 6 secs
Length of time utilized by emergency transportations over one year =	2980.65 days
Length of time utilized by RTT over one year =	234.26 days
Length of time utilized by AS8 patients =	43.72 days
<i>2950 (3.85%) of activations are not covered by above categories. These will include incidents where doctors have certified patients on scene negating use of AS8, cases where it has not been possible for crew to obtain patient details due to non co-operation of patient, patients transported by Air Ambulances, cases where ambulance has been aborted prior to arrival on scene etc. These incidents have not been included in the following calculations</i>	
Total Time utilized (excluding other) =	3258.62 days [2980.65+234.26+43.72]
Length of time utilized by RTT as proportion of total time used for emergency ambulance responses (excluding other) April 03 to March 04 =	7.19% [(234.26/3258.62)*100]
Average Cost per response is	£160.02
Average Cost of RTT =	9068 x 160.02
Average Cost of RTT for year April 03 to March 04 =	£1,451,061.36

*3206 (4.08%) of activations were not covered by above categories. These included incidents where doctors certified patients on scene negating use of AS8, cases where it was not possible for crews to obtain patient details due to non co-operation of patient, patients transported by Air Ambulances, cases where ambulance had been aborted prior to arrival on scene etc. These incidents were not included in the calculations.

Conclusion

The rate of non-transportation as a whole was 16.85%, which compared closely with a national figure of 17%.³ This indicated that this phenomenon was a universal problem for Ambulance Trusts.

The rate of 'RTT' as a percentage of total emergency ambulance requests showed no significant variation over a one year period. The annual cost (approximately £1.5 Million) to the ambulance trust of having an RTT rate of 11.54% was thought to be sufficiently high to warrant a qualitative study to gain a greater understanding of the reasons behind the phenomenon. Such costs may also be of interest to other Trusts considering the introduction of ECP services.