

Transfers to a general medical ward at National Hospital of Sri Lanka: a descriptive study

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Abstract

Many inadequacies are noted in transfer of patients to higher centres of care. This descriptive cross-sectional study was done to investigate some aspects of this issue. Data were collected from 116 patients who were transferred to a general medical ward at the National Hospital of Sri Lanka (NHSL) over a period of 3 months. Many inadequacies were noted in documentation, obtaining consent, accompanying medical personnel and appropriateness of transfer. Based on the findings some recommendations are made for future improvement.

Introduction

Transfers are common in the healthcare system of Sri Lanka and involve a considerable proportion of the health care expenditure. Patients are transferred from one institution to another often due to inadequate resources. These resources could be specialized investigations, drugs, other forms of treatment or qualified healthcare personnel. On the other hand, some patients are transferred to institutes with lesser amount of resources when the patient can be satisfactorily managed at such a setting. This serves the purposes of reducing patient load in higher institutes of care and for convenience of family support at a hospital closer to the patient's hometown.

Subjective impression suggests that there are many inadequacies in the transfer of patients such as:

1. inappropriate transfers where the purpose of transfer is not carried-out at the destination hospital.
2. transfer of patients who are not medically fit for transfer and transfer of unstable patients without proper accompanying medical personnel.
3. poor documentation in transfer forms.

This study was carried out with an objective of investigating the above issues.

Method

This was a descriptive cross-sectional study with convenient sampling. All transfers that were received at ward 42 and ward 56A of the National Hospital of Sri Lanka (NHSL) during the 3 month period from 01.03.2008 to 31.05.2008 were the study sample.

Data collection was through a questionnaire administered by the authors which included the following categories:

1. Date of transfer
2. Patient's age
3. Patient's sex
4. Source hospital
5. Whether consent obtained
6. Authorization for transfer
7. Indication for transfer
8. Accompanying person/s
9. Whether inotropic/respiratory support given during the transfer
10. Condition at receipt
11. Course of action at NHSL

Categories 1-7 were filled according to the information given in the transfer form.

Categories 8-11 were filled according to observations on receipt of the patient and information obtained from case notes.

Definition of some terms:

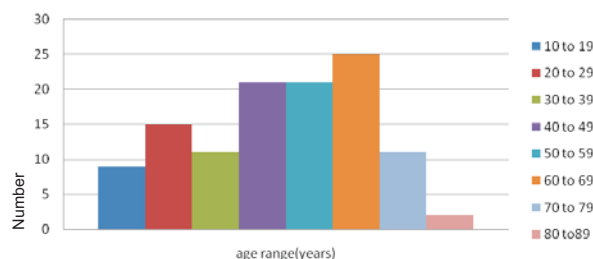
- Authorization: person who has signed at the bottom of the transfer form.
- Consent: whether written consent was obtained from patient or relative on the transfer form.
- Accompanying person: The highest person of authority accompanying the patient. (Doctor > Nurse > Attendant > Relative > None)
- Inotropic / respiratory support: whether patient was on intravenous inotropic infusion or receiving ambu bag ventilation at receipt.
- Condition at receipt: If patient's systolic blood pressure was below 100 mmHg or oxygen saturation was below 92% or level of consciousness was below 8 in the Glasgow Coma Scale at receipt, patient was defined as unstable.
- Appropriateness of transfer: Whether the course of action at NHSL matched the indication for transfer.

The data was analysed using the Microsoft Excel software program.

Results

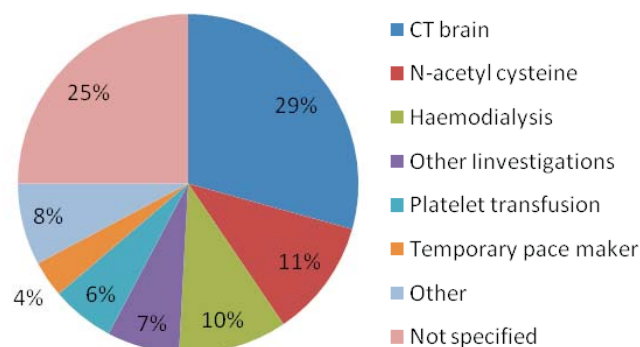
The total number of transfers received during the study period was 116. Fifty three percent of the transferred patients were females while 47% were males. Age of patients transferred ranged from 13 to 82 years, with a mean of 48 years. Their age distribution is shown in Figure 1.

Figure 1 - Age distribution of transferred patients



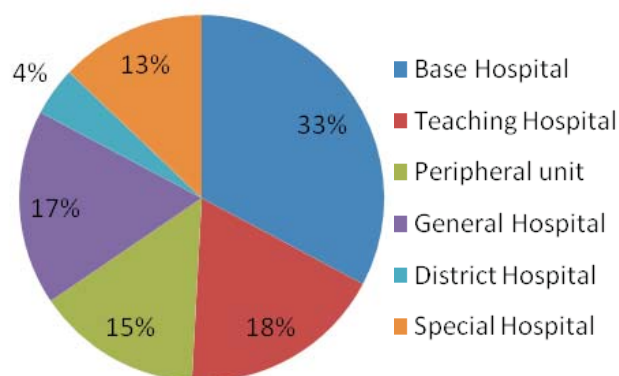
The main indications for transfer were for CT brain, N-acetyl-cysteine therapy and haemodialysis. The indication was not properly specified in 25% of transfers. This data are shown in Figure 2.

Figure 2 - Indication for transfer



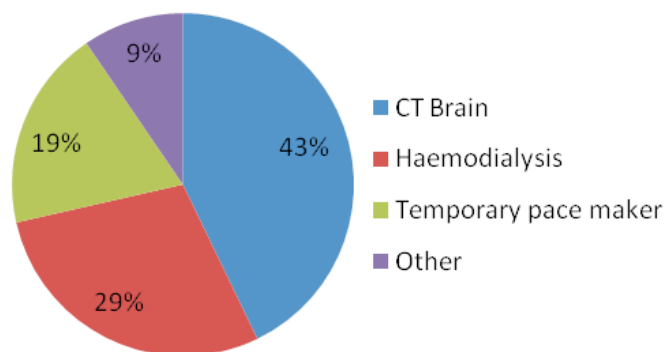
Thirty three percent of transfers were from Base hospitals and next were from Teaching hospitals (Figure 3).

Figure 3 - Grade of hospital from where the patients were transferred



Main indications for transfers from teaching hospitals included CT brain, haemodialysis and temporary pace maker insertion (Figure 4).

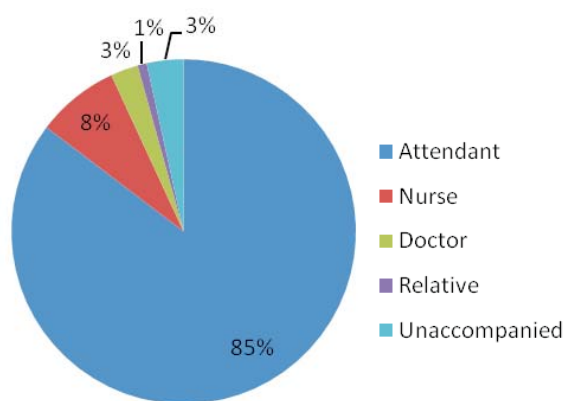
Figure 4 - Indications for transfer from Teaching Hospitals



Written consent for transfer was obtained from the patient or guardian in only 53% of transfers.

An attendant was the main accompanying person in 85% of transfers. Figure 5 shows this information.

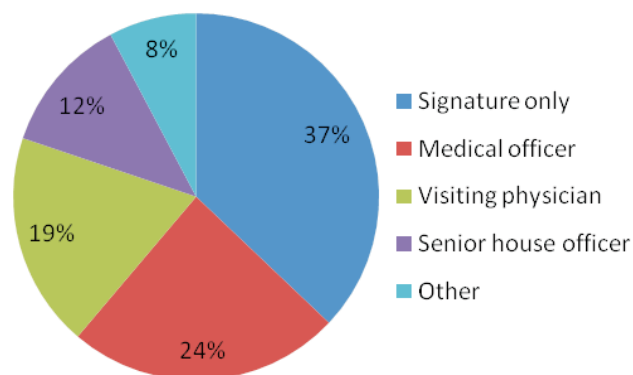
Figure 5 - Accompanying person of transferred patients



Authorization for transfer

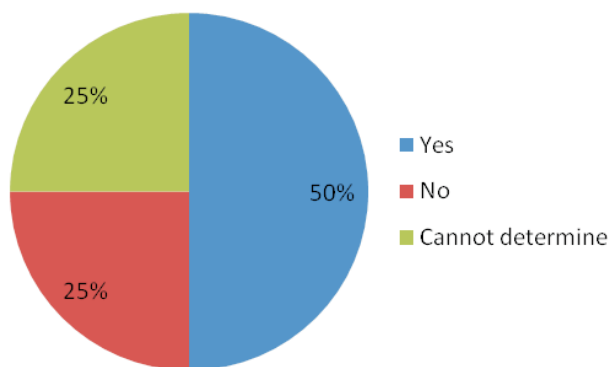
In 37% of transfers, only signature was placed without a mention of the designation of the transferring official. In 24% of patients transfer was authorized by a medical officer (Figure 6).

Figure 6 - Data on authorization of transfer



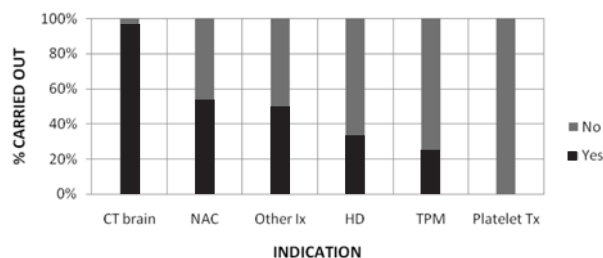
Only 1 patient out of 116 was on inotropic support at the time of receipt in the ward. Only 4 patients out of 116 (3%) were unstable at the receipt in the ward. Of the 4 unstable patients received at the ward, 3 were accompanied by an attendant and one was accompanied by a doctor. In 50% of transfers, the indication for transfer was fulfilled at the destination hospital. It was not fulfilled in 25% of cases while in the remaining 25% it could not be assessed as the indication for transfer was not clearly stated (Figure 7).

Figure 7 - Data on whether the indication for transfer fulfilled or not



When considering the appropriateness of transfer according to the indication, all but one of the transfers sent for CT brain were carried out. More than half of the transfers sent for haemodialysis and temporary pacemaker insertion were not carried out. Of the patients sent for platelet transfusion, none were given (Figure 8).

Figure 8 - Appropriateness of transfer according to indication



Discussion

The sex and age distribution of the patients who were transferred matches the distribution of patients admitted directly to a general medical ward.

The main indication for transfer to the general medical ward at NHSL was for CT brain (29%). This was followed by for N-acetyl-cysteine therapy after paracetamol poisoning (18%) and for haemodialysis (10%). These may reflect the limited availability of these resources in the source hospitals.

It is also noted that in 25% of transfer forms the exact indication for transfer was not mentioned. Vague statements such as “for specialized management” were used. This reflects poor medical documentation and communication.

Second highest amount of transfers (18%) were from Teaching hospitals. Further analysis revealed that 43% of these transfers were for CT brain scans. This is surprising since most of the Teaching hospitals are now equipped with CT scanners. This may be due to equipment failure at those particular hospitals.

Although written consent should be obtained from the patient or guardian before transfer according to the healthcare policy¹, this was obtained in only 53% of cases. This reflects poor knowledge and/or application of administrative procedures.

ninety six percent of transfers were accompanied by medical staff most being attendants (85%). But 5 patients (4%) came with a relative or by themselves to the ward. Although a few, these cases go against healthcare regulations, where a patient should be accompanied and handed over by a healthcare official after transfer.

In 37% of transfer forms, the designation of the person who decided on the transfer was not mentioned with the signature. This again reflects

poor documentation and perhaps avoidance of responsibility.

Only 1% of transfers came to the ward with inotropic support and only 3% of patients were medically unstable at receipt. This is probably due to the availability of the Emergency Treatment Unit (ETU) at NHSL where unstable patients are managed initially before forwarding to the ward. Therefore, these values may not be a true reflection of the proportion of medically unstable patients who were transferred. This is a limitation of this study. Data should have been collected at receipt to ETU as well.

Further analysis revealed that 75% of the unstable transfers were accompanied only by an attendant. This could be due to lack of medical personnel at source hospitals or underestimation of the seriousness of the patient's medical condition before transfer.

Indication for transfer was not carried out at NHSL in 25% of transfers. Further analysis revealed that these inappropriate transfers were mostly for platelet transfusion, temporary pacemaker insertion and haemodialysis, where these were not carried out in 100%, 75% and 66%, respectively.

Most patients sent for platelet transfusion were having either dengue fever or leptospirosis and there was no clinical indication for platelet transfusion as the patients were clinically stable without bleeding manifestations or shock. This may reflect a poor understanding of indications for platelet transfusions by the referring medical personnel and lack of facilities.

Patients sent for temporary pacemaker insertion were after yellow oleander poisoning, but in 75% of patients, there was no indication for the procedure at the time of receipt. sixty six percent of patients sent for haemodialysis had no indication for dialysis. Most of these patients had pre-renal renal failure and urine output recovered with fluid challenge.

Most of these transfers seemed to be done to err on the side of safety, but this needs to be balanced against the danger of transfer to the patient, expense to the health care system and inconvenience to care-takers of the patient.

Recommendations

1. Proper documentation in transfer forms especially the exact indication for transfer and designation of the officer who decided on the transfer.
2. Paying more attention regarding obtaining written consent before transfer.
3. Establishment and proper maintenance of CT scanners at source hospitals.
4. Make N-acetyl cysteine available at source hospitals.
5. More attention regarding potentially unstable patients before transfer and to send them with a medical officer and/or a nurse.
6. Dissemination of medical knowledge regarding indications for platelet transfusions in the setting of fever with thrombocytopaenia.

References

1. Beligaswatta AML. Transfer of patients from one institution to another. Department of Health Services, Ministry of Health. General Circular No.01-09/2002. Issued on 29-04-2002.