

ORIGINAL ARTICLE

The Child Protection Register: A tool in the accident and emergency department?

N M Flanagan, C MacLeod, M G Jenkins, R Wylie

Emerg Med J 2002;19:229–230

See end of article for authors' affiliations

Correspondence to:
Dr N M Flanagan, c/o
Paediatric Secretaries,
Antrim Hospital, Bush
Road, Antrim BT41 2RL,
Northern Ireland;
nulesfl@hotmail.comAccepted for publication
29 October 2001

Aims: To determine the number of children on the Child Protection Register (CPR) attending the accident and emergency (A&E) department and the referral source, diagnostic category, and frequency distribution for such attendances. To determine whether lack of knowledge that a child is on the CPR results in failure to suspect non-accidental injury (NAI) if the standard indicators of NAI have been sought.

Methods: Access to the CPR was obtained. Records of each child attending the A&E departments of the United Hospitals Trust between June 1994 and May 2000 were reviewed.

Results: Over the six years 191 children were on the CPR. Seventy nine (41%) attended A&E departments on 206 occasions. Frequency of attendance ranged to 18 with a mean of 2.6. Self referral was the commonest source of referral (81%) followed by general practitioners (13%), 999 calls (5%), and a small number from schools (1%). Most presentations involved trauma—upper limb (21%), lower limb (14%), and head injury (8%). Almost all cases of trauma were adjudged to be consistent with the history and NAI not suspected. Common childhood illnesses accounted for the remainder of presentations. Only six children were identified as being on the CPR at the time of presentation. Concerns were raised in two other cases and concerns should have been raised in three other children. Social Services were alerted on five occasions directly by the parents themselves.

Conclusions: It is concluded that in the absence of knowledge of the status of a child on the CPR attending the A&E department, that screening for the standard indicators of NAI is adequate to detect most cases of NAI.

Anecdotal reports suggest children on the Child Protection Register (CPR) continue to suffer non-accidental injury (NAI), the presentation of which is missed because accident and emergency (A&E) department doctors are unaware of their CPR status. The converse is also argued—the objective assessment of a child known to be on the CPR is difficult, leads to over-investigation and occasionally hostility between parents and staff.¹ To make sense of the different viewpoints a study was commissioned by the United Hospitals Trust Child Protection Panel with the intention of developing an evidence based approach to the use of the CPR in our A&E departments. The present policy entails the A&E doctors requesting access to the CPR if suspicions arise, as compared with automatic checks at triage for all children attending. Standard indicators of NAI are well documented in the literature.² These include inconsistent histories, clinical findings that do not match the history, delay in presentation, recurrent injuries, and certain injuries considered to be highly suggestive of NAI such as fingertip bruises, subdural and retinal haemorrhages, and cigarette burns.

The aims of this study were to determine the number of children on the CPR attending the A&E department and the referral source, diagnostic category, and frequency distribution for such attendances and to determine whether lack of knowledge that a child is on the CPR results in failure to suspect NAI if the standard indicators of NAI have been sought.

METHODS

Permission to access the CPR was obtained from the director of social services. The records of all children on the CPR presenting at any of the three A&E departments in the Trust (Antrim Area, Whiteabbey, and Mid-Ulster Hospitals) between June 1994 and May 2000 were retrieved. Each record was examined for presenting complaint, source of referral,

Table 1 Demographic details

Age (y)	Male	Female
<4	9	9
4<8	6	15
8<12	11	6
>12	10	13
Total	36	43

indications of concern about NAI, whether there was any indication on the chart that the child was on the CPR, and whether attempts were made to check the CPR. The clinical details were compared with standard indicators of NAI² and any contacts with Social Services recorded.

RESULTS

Over the six year study period 191 children were on the CPR in the “active” status. Of these 79 (41%) attended the A&E department on 206 separate occasions. In total, 161 039 children attended the A&E department over that period. The children were of mixed age and sex (table 1).

Frequency of attendance ranged from 1 to 18 with a mean of 2.6, mode of 1 and median of 6.

Self referral was the commonest source of referral (81%) followed by general practitioners (13%), 999 calls (5%), and a small number from schools (1%).

Abbreviations: NAI, non-accidental injury; CPR, Child Protection Register

Table 2 Presenting complaints

Complaint	Frequency (%)
Trauma	
Upper limb trauma	43 (21)
Lower limb trauma	29 (14)
Scalp/facial laceration	21 (10)
Head injury	17 (8)
Trauma to trunk	14 (7)
Ear/nasal trauma	9 (4)
Eye trauma	6 (3)
Overdose	4 (2)
Non-trauma	
URTI	14 (7)
Asthma	10 (5)
Gastroenteritis	10 (5)
PUC/UTI	9 (4)
Rash/chickenpox	5 (2)
Headache	3 (2)
Appendicitis	2 (1)
Convulsion	2 (1)

Most presentations involved trauma; upper limb trauma (21%), lower limb trauma (14%), scalp or facial lacerations (10%); and head injury (8%). Almost all cases of trauma were adjudged to be consistent with the history and NAI was not suspected. Common childhood illnesses accounted for the remainder of presentations (table 2).

Only six children were identified as being on the CPR at the time of presentation. Accompanying social workers had identified two children and two were identified by foster parents. In two of these cases the possibility of NAI was raised. In the first case foster parents became concerned about bruising after a parental visit and brought the child to the A&E department. In the second case a baby was referred for evaluation of bruises noted by the health visitor on a routine check. In neither case was NAI diagnosed after full paediatric review, including skeletal survey of the baby. Concerns were raised in connection with two children not on the CPR and in one, a 4 week old baby with a skull fracture, the diagnosis of NAI was made resulting in the child being placed on the CPR.

When compared with standard indicators of NAI three other children should have raised concerns. A 17 year old boy was noted to have bruising after his stepfather twisted his arm in a domestic dispute, a 7 year old girl with vulval bleeding and genital tears following a fall from a bicycle, and a 16 year old boy on his 18th attendance, 13 resulting from trauma including four assaults.

In five separate instances social services alerted the A&E department to the patients CPR status the parents having contacted them directly to inform of the injury. In each case the records were rechecked but no markers of NAI were flagged.

Only three children attended two different A&E departments, each time for minor childhood ailments for which they had not attended previously.

DISCUSSION

Our study is the first reported comprehensive examination of how children on the CPR use the A&E department. Our findings indicate that the vast majority of children on the CPR presenting to the A&E department do so for reasons unrelated to NAI or neglect. Indeed the two cases of suspected NAI that were known to be on the CPR at the time of presentation were found not to have been abused. On the other hand our findings suggest that three cases of possible abuse were missed primarily because standard indicators of abuse² were not recognised as such. Of note, Northern Ireland's child protection legislation states that a child is anyone up to and including 18 years of age.

This would suggest that knowledge of a child's CPR status is much less important than A&E staff who are well trained in the recognition of NAI. Our findings contradict those of others³ who have suggested that it is important that the CPR status of all children attending the A&E department is known. The study showed that the standard indicators of NAI were not always sought by the A&E doctors, suggesting the need for an aide memoir such as a flow chart or sticker.⁴

An incidental finding we were interested to note was that, in contrast with conventional wisdom, only a tiny minority of families with children on the CPR presented to more than one A&E department in our Trust area. It is of course possible that some families presented to A&E departments in other Trusts but our study was not designed to look for this.

Despite these limitations we feel there is enough evidence to support access to the CPR on a "need to know" only basis, provided the standard indicators of NAI are sought in each child presenting to the A&E department. Closely linked with this is the need to be continually vigilant and ensure all front line A&E staff, particularly junior and new staff, remain up to date in the recognition of NAI.

Accordingly we have introduced biannual training for junior hospital staff as has been recommended elsewhere.⁵ The training input is multidisciplinary with contributions from hospital social work staff, the child protection nurse specialist, and consultants in paediatrics and A&E. It is intended to function both as an induction for new paediatric and A&E senior house officers, and as an update for specialist registrars and career grade staff.

Other measures including the amalgamation of children's notes so previous attendances can be checked⁶ are already in place.

We conclude that in the absence of knowledge of the status of a child on the CPR attending the A&E department, that screening for the standard indicators of NAI is adequate to detect most cases of NAI.

Contributors

Nuala Flanagan participated in the design and execution of the research particularly data collection, data documentation, analysis and writing of the paper. Calum MacLeod, as a member of the United Hospital's Trust Child Protection Panel, initiated the study, participated in the analysis of the data and edited the paper. Dr MacLeod will be the guarantor for the paper. Mark Jenkins participated in collection, analysis and interpretation of the data, and contributed to the writing of the paper. Ron Wylie collected data and edited the paper.

Authors' affiliations

N M Flanagan, C MacLeod, Paediatrics, Antrim Area Hospital, Northern Ireland

M G Jenkins, Accident and Emergency Department, Antrim Area Hospital

R Wylie, Accident and Emergency Department, Whiteabbey Hospital, Northern Ireland

REFERENCES

- 1 **Nicol MF**, Harris A. Child protection register time for change. *J Accid Emerg Med* 1999;**16**:77-8.
- 2 **Meadows R**. *ABC of child abuse*. London: BMJ Publishing, 1983.
- 3 **Dove A**, Kobryn M. Paediatric nursing: computer detection of child abuse. *Nurs Stand* 1991;**6**:38-9.
- 4 **Benger JR**, Pearce AV. Non-accidental injury in preschool children attending the accident and emergency department. *J Accid Emerg Med* 1999;**16**:386.
- 5 **British Paediatric Association**, British Association of Paediatric Surgeons, Casualty Surgeons Association. *Joint statement on children's attendances at accident and emergency departments*. London: British Paediatric Association, 1988.
- 6 **Brennan PO**. Audit of child protection procedures in an A&E department. [Letter]. *BMJ* 1998;**316**:775-6.