On call paediatricians were not better than advice nurses for after hours medical advice in a general paediatric population


In a general paediatrics population, is medical advice from on call paediatricians compared with that from advice nurses associated with (1) fewer parents or guardians seeking unadvised medical care, and (2) fewer parents or guardians obtaining unadvised significant care for their children?

**MAIN RESULTS**

In a general paediatrics population, medical advice from on call paediatricians or advice nurses did not differ for number of parents or guardians who sought unadvised medical care or those who obtained unadvised significant medical care for their children.

**CONCLUSION**

In a general paediatrics population, medical advice from on call paediatricians compared with that from advice nurses did not differ for number of parents or guardians who sought unadvised medical care or those who obtained unadvised significant medical care for their children.

**METHODS**

Design: randomised controlled trial.

Allocation: concealed.

Blinding: blinded (healthcare providers).

Follow up period: 72 hours.

Setting: a university general paediatrics faculty practice in Los Angeles, California, USA.

Patients: 1182 parents or guardians who called for after hours telephone advice from the on call paediatrician regarding their children (mean age 3 y; 55% boys). Exclusion criteria: calls not for medical advice, calls for emergency medical conditions, and calls in which the callers were unable to consent (eg, non-English speaking or not a legal guardian).

Interventions: telephone medical advice from on call paediatricians (n = 566) or advice nurses (n = 616).

Outcomes: number of participants who sought unadvised health care (ie, level of care pursued by the caller was higher than that advised by the on call paediatrician or advice nurse, such as emergency department visits when only office care or self care had been advised) and number of participants who obtained significant unadvised health care for their children, such as hospital admission, within 72 hours of the initial telephone call.

Patient follow up: 97%.

**OUTCOMES AT 72 HOURS**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Advice nurses</th>
<th>RRI (95% CI)</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sought unadvised care</td>
<td>20%</td>
<td>19%</td>
<td>4.5% −18 to 33</td>
</tr>
<tr>
<td>Sought and obtained unadvised significant care</td>
<td>4.2%</td>
<td>4.3%</td>
<td>2.1% −69 to 43</td>
</tr>
</tbody>
</table>

**Commentary**

The tension between cost effective and safe care is played out nightly on the telephone when anxious parents call asking what to do about a child’s presumed illness. The network of after hour, telephone advice services using protocols to direct decision making has grown exponentially in North America in the past decade. In the UK, National Health Service Direct was launched in 1998, and 40% of calls concern children. Previous studies have found appropriate rates of referral to emergency departments and low risk of morbidity and mortality after telephone advice provided by non-physicians who used clinical algorithms. However, the study by Lee et al contributes to our understanding of this phenomenon by examining an important subset of the advice seeking population: those who are deemed “well enough” to delay care. This study attempted to ascertain the safety of advice given by nurses to delay care or to provide self care compared with that given by paediatricians. The results suggest that nurses using triage algorithms are safe substitutes for physicians. In the 2 cases where nursing advice was followed up by significant unadvised care that included hospital admission, detailed clinical summaries suggest that hospital admission was not indicative of poor advice from nurses.

It is important to recognise the context of the study. The sample was drawn from a highly educated, privately insured population accustomed to having a paediatrician available for their after hours calls. Further studies should be done in populations that are less educated and have fewer resources. Studies with parents who are less knowledgeable and have poorer communication skills may reveal differences not apparent in this study.

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