Importance of integrated care processes in quality accreditation of paediatric clinical management units☆

Importancia de los procesos asistenciales integrados en la acreditación de calidad de unidades de gestión clínica pediátricas

Dear Editor:

Health care quality certification is a continuous and evolving process which reflects the present state of affairs and the potential for improvement. The Andalusian Agency for Health Care Quality (ACSA), under the authority of the Regional Department of Equality, Health and Social Policies, is the certifying body of the quality accreditation model for hospitals and health care units in this autonomous community.[1]

The Clinical Management Units (CMUs) at the Hospital Universitario Virgen de las Nieves de Granada that have successfully completed the process of accreditation by the ACSA include two that treat paediatric patients: Médico-Quirúrgica de la Infancia (Children's Medical/Surgical Unit) and Otorrinolaringología (Ear, Nose and Throat [ENT] Unit). These units received the advanced level certificate, according to the standards model established for CMUs,[2] during an assessment process completed in 2011 for the Children's Medical/Surgical Unit, which satisfactorily passed the four-year follow-up visit in 2014, and for the ENT Unit in 2013. Among other dimensions, the standards refer to coordination of person-centred care, including management by integrated care pathways (ICP). The hospital's Health Care Quality Unit advised and participated actively in introducing ICPs and in self-assessment for ACSA accreditation by both CMUs.

In the Children's Medical/Surgical Unit CMU the ICPs were identified according to its portfolio of services, distributed in two categories as shown in Table 1.

For the introduction of the Childhood Asthma ICP[3] meetings were held with professionals from other hospitals and in Primary Care, and they compiled protocols for regulating the flow of patients between Primary and Specialist Care, with criteria for referral, followup and training requirements. Periodic monitoring of quality standards was established.

The actions involved in introducing this ICP were as follows:

- Setting up a working group to analyse the situation in this health care area and the introduction of the ICP and to formulate recommendations.
- Creating the specific representation (algorithm) at local level, which makes it possible to show *what*, *when*, *how*, *where* and *by whom* ICP activities are developed, and to identify the critical points for patient safety.

Table 1 Integrated Care Pathways by prioritisation criteria and phase of introduction in paediatric units at the Hospital Universitario Virgen de las Nieves de Granada.

Phase of introduction	Compulsory	Priority
Introduced	Childhood asthma	Early Childhood Care
Introduction started		Tonsilloadenoidectomy Otitis media
Not introduced (in clinical documentation phase)		Fever syndrome in children

- Defining the ICP indicators and guaranteeing periodic assessment of them in the CMU.
- Formulating a communication and training plan aimed at:
  - Paediatricians, nursing staff and pharmacists in the health districts of Granada, with the appointment of a medical/nursing point person in each district.
  - Training in performing spirometries in Primary Care, with a protocol for administration of bronchodilators and proposals for safety measures when doing so.
- Setting up the follow-up and continuous improvement group in the area of continuity of care.
- Creating improvement groups with users: school workshops with training for teachers, educational material for children and surveys to evaluate it.

Following the publication of a new edition of the Asthma ICP, a follow-up group was convened to update it, design a road map with risk points for patients and conduct training in childhood asthma for education professionals.

For the Early Childhood Care ICP,[4] a committee was set up to introduce it, centralised at the provincial health authority, with contacts in hospitals and health districts in the province. Points of particular importance were coordination among early childhood care centres and dissemination to professionals in other fields (socio-educational care centres).

Among the aspects of the ENT CMU that received the most favourable assessment in the certification process, its outpatient work, conducted according to protocols, was highlighted as a strength, with the introduction of specific ICPs for its portfolio of services. For this purpose they carried out a situation and specific representation analysis with local adaptation of the Otitis Media[5] and Tonsilloadenoidectomy[6] ICPs at the hospital. To the specific representation they added the basic points in the clinical history to be carried out and the quality indicators to be monitored periodically after its implementation.

In the Otitis Media ICP three sub-processes were specified: acute, serous and recurrent acute otitis media, and it was supplemented with explanatory documents, clinical practice guidelines and patient information used in the Childhood ENT consulting room.

There are plans to introduce a Tonsilloadenoidectomy ICP and the recommendations in the clinical practice guidelines are currently being applied.

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The work described and coordinated among professionals has helped the two units to achieve accreditation. The introduction of ICPs is a useful tool for continuous improvement and for certification of CMUs that treat paediatric patients, becoming a guarantee of quality for the care of the public.

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Procalcitonin and early-onset seizures: When do we offer a higher diagnostic yield?☆,☆☆

Procalcitonina y síndrome febril precoz: ¿cuándo nos ofrece mayor rentabilidad diagnóstica?

Dear Editor:

Fever is one of the most frequent reasons for paediatric emergency visits. It may be caused by an invasive bacterial infection in up to 30%[1] of cases, and it is important that these patients are identified to initiate treatment early. To this end, we can use laboratory markers of infection such as peripheral white blood cell (WBC) counts, C-reactive protein (CRP) or procalcitonin (PCT), and several studies have concluded that the latter is probably most useful.[2] However, the data are scarce for the paediatric age group and there is no evidence on what the optimum time is for its determination.

The aim of our study was to analyse the time at which the diagnostic yield of PCT is highest, as well as the ideal cut-off point to differentiate a severe bacterial infection, and we also compared PCT with other markers of infection.

We conducted a prospective, observational, analytical cohort study at the paediatric emergency department over the course of 12 months. The study included 217 patients (ages 7 days–36 months) presenting with fever without a source of less than 48 h of duration on whom a blood test was performed to rule out bacterial infection due to clinical warning signs (general malaise, inadequate reduction of fever, etc.). We excluded children that had been given antibiotics. We collected data for age, duration of fever in hours (categorised by the most common time intervals used in emergency practice: <6, 6–12 and >12 h), WBC count, CRP and PCT levels, microbiology tests and final diagnosis (invasive bacterial infection [IBI], localised bacterial infection, and confirmed viral infection). We grouped the PCT and CRP values by risk level. For PCT, the levels were: low risk, under 0.5 ng/mL; moderate risk, 0.5–2 ng/mL; and high risk, above 2 ng/mL. For CRP, they were: low risk, 0–5 mg/dL; moderate risk, 5–10 mg/dL; and high risk, above 10 mg/dL.

We observed that 80% of IBIs were associated with PCT levels above 2 ng/mL between 6 and 12 h since fever onset. At this cutoff, specificity was 100% for the 3 time

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