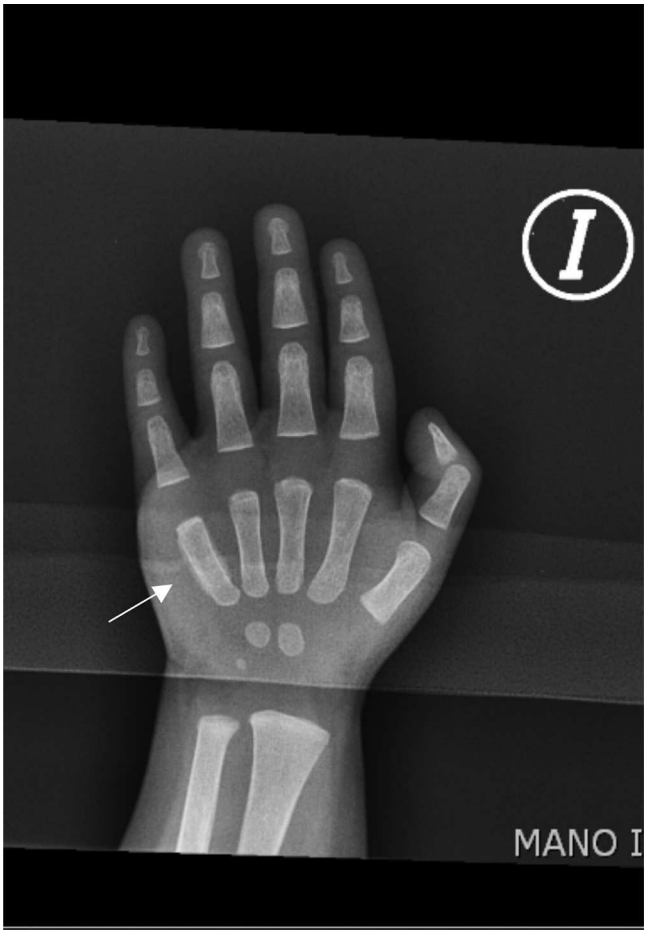

Figure 1 Left hand radiograph: periostic reaction in the fifth metacarpal bone.

20 500 mm^3 (neutrophils: 9200 mm^3). The comprehensive metabolic panel was normal. The levels of C-reactive protein and procalcitonin were 48.9 mg/L and 4.57 ng/mL, respectively.

Since severe splenic sequestration was suspected, an urgent transfusion of red blood cell concentrate was performed, and intravenous (IV) rehydration therapy and empirical treatment with IV ceftriaxone were initiated.[6] The patient had a favourable outcome, as he did not require further transfusions and his platelet levels recovered.

After 6 days of receiving ceftriaxone and obtaining negative blood, urine and stool culture results and a positive result for rotavirus, intravenous antibiotic treatment was discontinued and prophylactic treatment with penicillin resumed.

This patient is being treated with chronic exchange transfusions to maintain HbS levels below 30% (carrier levels) and is a candidate for splenectomy at 2 years of age to prevent recurrence, a measure that is still controversial but that is approved by current guidelines.

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Use of antipyretics in paediatric emergencies☆

Uso de antipiréticos en urgencias pediátricas

To the Editor:

Although fever has beneficial effects, its control is recommended due to the general malaise associated with it.[1] Its presentation leads parents to seek emergency services due to fear of seizures, brain damage or severe disease.[1] Good clinical practise guidelines (GCPGs) recommend controlling fever by physical methods and the administration of antipyretics to improve the wellbeing of the child.[2,3] However, surveys of doctors reveal indications for their use that are not recommended.[4,5] To evaluate this behaviour prospectively, we analysed the prescription of antipyretic drugs in a paediatric emergency room.

The study protocol was approved by the local committee for research and ethics. We recruited 181 patients younger than 16 years, previously healthy, that had acute fever (<72 h) in their first visit to the emergency department and discharged in less than 24 h without fever. The paediatrician

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Table 1 Body temperature control in the emergency room by age group, *N* (%).

	Infants *N* = 73	Preschoolers *N* = 60	Schoolchildren and adolescents *N* = 47	*P*-value
Sex, N (%)				.26[a]
Male	45 (61.6)	29 (48.3)	24 (51.1)	
Female	18 (38.4)	31 (51.7)	23 (48.9)	
Infection site, N (%)				.052[a]
URTI	47 (64.4)	39 (65.0)	20 (42.6)	
PIGE	12 (16.4)	16 (26.7)	22 (46.8)	
Febrile syndrome	6 (8.2)	1 (1.7)	3 (6.4)	
UTI	4 (5.5)	1 (1.7)	1 (2.1)	
LRTI	2 (2.8)	2 (3.3)	1 (2.1)	
Other	2 (2.8)	1 (1.7)	0	
History of febrile seizure, N (%)	6 (8.2)	0	0	.01[a]
Antipyresis before admission, N (%)				
Monotherapy	44 (60.2)	28 (46.6)	21 (44.7)	.09[a]
Combination (2)	11 (15.0)	16 (26.6)	6 (12.7)	
Combination (3)	1 (1.4)	2 (3.3)	0	
Combination (4)	1 (1.4)	0	0	
No antipyresis	16 (21.9)	14 (23.3)	20 (42.7)	
Antipyresis in emergency room, N (%)				
Monotherapy	65 (89)	53 (88)	41 (87)	.65[a]
Combination (2)	3 (4)	4 (6)	1 (2)	
Only physical methods	5 (7)	3 (5)	5 (11)	
Antipyresis prescribed at discharge, N (%)				
Monotherapy	20 (40)	22 (37)	11 (23)	.70[a]
Combination (2)	33 (45)	27 (45)	27 (57.5)	
Combination (3)	5 (7)	3 (5)	2 (4)	
Only physical methods	6 (8)	8 (13)	7 (8)	
Temperature at admission, °C				
Mean ± 1 SD	38.4 ± 0.4	38.5 ± 0.5	38.5 ± 0.4	.55[b]
Minutes elapsed to temperature control, median (min-max)				
No antipyresis before admission	60 (19–80)	60 (30–105)	68.5 (40–162)	.12[c]
Antipyresis before admission	60 (10–190)	60 (19–130)	78 (30–182)	.004[d]

LRTI: lower respiratory tract infection (bronchiolitis, acute bronchitis); Other: mesenteric adenitis (1) and dentition (1) in infants, hand-foot-mouth disease (1) in a preschooler; febrile syndrome: fever without a source; PIGE: probably infectious gastroenteritis with or without dehydration; URTI: upper respiratory tract infection (rhinopharyngitis, pharyngitis, pharyngoamygdalitis, laryngitis, laryngotracheitis and otitis media); UTI: urinary tract infection.

[a] χ^2 test.

[b] One-way analysis of variance.

[c] Kruskal–Wallis test: infants *N* = 16, preschoolers *N* = 12, schoolchildren and adolescents *N* = 20.

[d] Kruskal–Wallis test: infants *N* = 57, preschoolers *N* = 45, schoolchildren and adolescents *N* = 24.

in charge made the treatment decisions. Risky indications were reported, and it was ensured that the doses administered were given at the correct dosage.

We analysed age, sex, administration of prehospital medication, history of febrile seizures and reason for seeking care, medication(s) administered at the hospital, and medication(s) prescribed at discharge. We analysed changes by age group. The changes considered were: (1) no changes; (2) addition: to antipyretic agent(s) given prehospital or at the hospital; (3) substitution: the prescription at discharge differed in at least one antipyretic agent from previous prescription; (4) reduction: the number of antipyretics prescribed at discharge was lower; (5) withdrawal of antipyretics at discharge; and (6) same treatment before admission and at discharge, with changes in antipyretic prescription only at the emergency room.

We performed the statistical analysis using absolute frequencies and percentages, comparing variables with the χ^2 test, analysis of variance and the nonparametric Kruskal–Wallis test as applicable. We set the level of statistical significance at $P < .05$.

The main reasons for seeking care were respiratory and gastrointestinal infections. The former predominated in infants and preschoolers, and the latter in schoolchildren and adolescents (Table 1).

The number of patients that received prehospital antipyretic treatment was 130 (71.8%); this proportion was higher in infants (78.1%) and preschoolers (76.7%) than

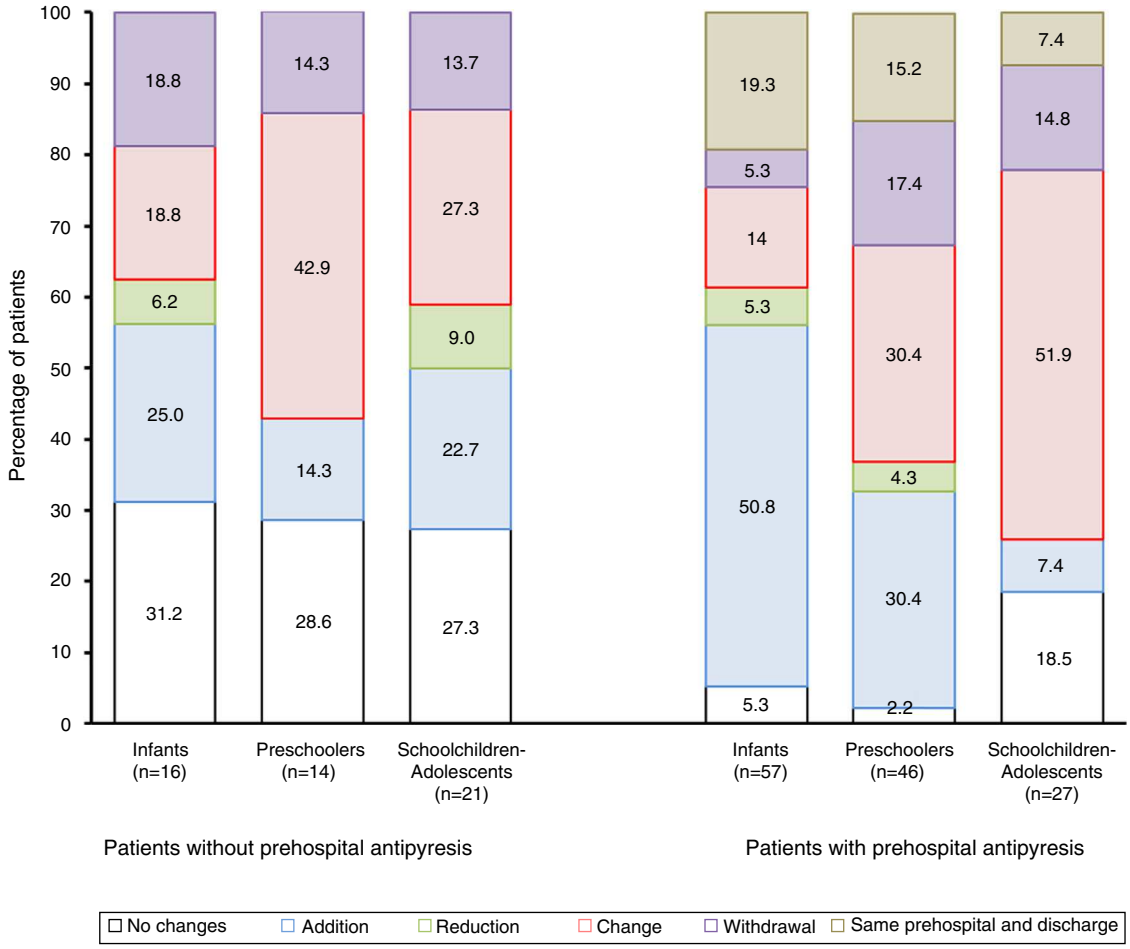

Figure 1 Distribution of the modifications in antipyretic management by age group and depending on whether the patient had received prehospital antipyresis (first three bars) or not (last three bars). The modifications considered were: addition, if other agent(s) were added to the original prescription; reduction, if the original treatment consisted of two or more agents and the discharge prescription included fewer of them; change, if the final prescription differed in at least one to all the antipyretic agents; withdrawal, if antipyretic treatment was discontinued completely; same prehospital and discharge when the antipyresis scheme was only modified during the hospital stay. The difference between groups without prehospital antipyresis was $\chi^2 = 3.9$; df = 8; $P = .90$; and the difference between groups with prehospital antipyresis was $\chi^2 = 31.5$; df = 10; $P = .0005$.

in schoolchildren and adolescents (57.4%) ($\chi^2 = 6.9$; df = 2; $P = .03$). The most common pattern was prescription of a single antipyretic agent ($N = 93$), but two alternating agents were prescribed in 25.3% (33/180) of patients, and more than two in four patients. The most frequently prescribed agents were paracetamol and ibuprofen (in monotherapy or alternating). In infants it was paracetamol (43.8%), as opposed to ibuprofen in preschoolers (54%) and schoolchildren and adolescents (64.7%).

All patients were treated with physical methods in the emergency room, and 92.2% (167/181) with at least one antipyretic in monotherapy (159/167; 94%), with no differences between groups (Table 1). The most frequently prescribed antipyretic agent, in monotherapy or in combination, was metamizole (97/167; 58%), followed by paracetamol (51/169; 30.2%) and ibuprofen (19/169; 11.2%). Eight patients received a combination (paracetamol and naproxen). The route used most frequently in infants was the rectal route (73.5%); in preschoolers they were the rectal (43.9%) and oral (29.8%) routes; and in schoolchildren and adolescents, the oral route (52.4%). The mean time elapsed until the body temperature normalised was 1 h.

Of the children that did not receive prehospital antipyretic agents, 22% (11/50) were discharged with a prescription for physical antipyresis alone, and there were no changes in treatment in 31%. In the rest, the most frequent changes were the addition of an antipyretic agent other than the one used in the emergency room, or switching to another (Fig. 1).

The predominating prescription pattern at discharge in children that had received prehospital antipyretic treatment was: for infants, continuation of the agent prescribed at hospital and addition of one or more others; for preschoolers, addition or switching of antipyretic agents; and for schoolchildren and adolescents, switching to another agent. At discharge, 86.7% (157/181) of the patients were prescribed one or more antipyretics; 55.4% were prescribed a combination of two agents, 40.7% a single agent; and 3.8% (6/157) three agents. The antipyretic most frequently prescribed as monotherapy was paracetamol (52.6%),

prescribed in 72.4% of infants, followed by ibuprofen (34.6%). The antipyretic most frequently prescribed in combination was ibuprofen (48.4%) (Fig. 1).

We found that antipyretics were used very frequently prior to visiting the emergency department. Although the use of paracetamol or ibuprofen (alone or in combination) was most prevalent,[6] we also found combinations of up to three agents for which the efficiency and safety have not been demonstrated. The use of physical methods, as recommended in different GCPGs, predominated in the emergency room;[2,3] however, prescription of antipyretics not previously used and of agents like metamizole (banned in developed countries) to schoolchildren and adolescents was also common. The current recommendations are the use of monotherapy by the oral route and educating parents on the benefits of fever and its adequate control.[1,2] The major finding in our study was the change in the prescription of antipyretics at discharge to the home. Contrary to what we expected, at discharge most patients were prescribed an additional antipyretic or an antipyretic other than the one that had been used to control the fever. This may be interpreted as anxiety on the part of both parents and doctors, so better communication and education on warning signs, and not only on the control of body temperature, would be advisable. Our results need to be confirmed by studies performed in other locations and under different conditions.

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Narcolepsy-cataplexy, a disease of autoimmune origin☆,☆☆

Narcolepsia-cataplejía, una enfermedad de etiología autoinmune

To the Editor:

The current International Classification of Sleep Disorders includes two different types of narcolepsy: narcolepsy type 1 (with hypocretin deficiency or cataplexy) and narcolepsy type 2 (without hypocretin deficiency).[1,2]

Narcolepsy type 1 was traditionally known as narcolepsy-cataplexy and is a chronic disease with symptoms that include excessive daytime sleepiness, sleep attacks, sudden episodes of loss of muscle tone when awake, hypnagogic hallucinations, sleep paralysis and disrupted nocturnal sleep.[2,3]

It has an autoimmune aetiology, the target of which is the secretion of the hypothalamic neuropeptide hypocretin-1,[4] and it is strongly associated with HLA-DQB1*0602.[5]

We present the case of a 9-year-old boy that was previously healthy. There was no family history of neurologic disease.

The child sought care for attention deficit with a decline in academic performance lasting 3 months. He also reported chronic daytime hypersomnia punctuated with sleep attacks during which the patient dreamed. In the last 2 months the patient had experienced 4–5 episodes a day of sudden and brief loss of muscle tone in the neck and lower extremities with no clear trigger and associated, as we later found, to tongue protrusion. In the past few weeks he had been eating more than usual.

The clinical examination was normal, although the child reported sleepiness.

The awake electroencephalogram and the head and hypothalamus MRIs were normal.

The modified Epworth sleepiness scale was completed to assess the degree of daytime sleepiness, and the patient scored within the severe range (20/24).

A polysomnography (PSG) was performed, showing a disrupted sleep architecture with fragmented but efficient sleep with onset in REM sleep and with a higher than expected proportion of REM sleep for his age. The

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☆☆ **Previous presentation:** This study was presented at the Congreso Extraordinario de la AEP 2014; June 5–7, 2014; Madrid, Spain.