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Original Article

The management of febrile seizures by pediatricians in Indonesia: adherence to *2016 Indonesian Pediatric Society Recommendations* and influencing factors

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Abstract

Background Although febrile seizures are generally benign, judicious management is needed to prevent inadequate or excessive management. In 2016, the *Indonesian Pediatric Society* (IPS) issued Recommendations for the Management of Febrile Seizures, but it is unclear whether pediatricians follow these recommendations in their clinical practice.

Objectives To evaluate adherence to the *2016 IPS Recommendations for the Management of Febrile Seizures* amongst pediatricians in Indonesia, as well as factors influencing adherence.

Methods An anonymous online questionnaire was distributed by e-mail to IPS member pediatricians. We collected data on age, year of completion of pediatric residency or subspecialty training, practice region, type of practice, number of febrile seizure patients managed per month, and history of attending teaching sessions on the recommendations. We scored participants' adherence to the recommendations in terms of pharmacologic treatment, ancillary testing, and prognosis. We also analyzed the difference in scores according to participant characteristics.

Results Of 308 participants, 247 (80%) obtained a total adherence score of 50% or more of the highest possible score. Median total adherence score was 63.2% (range 20.6% to 100%) of the highest possible score. Median adherence scores were significantly higher in pediatricians who were 31 to 60-years-old *vs.* >60-years-old (64.7% *vs.* 52.9%, P=0.004), completed their residency training within the past <10 years *vs.* >10 years (64.7% *vs.* 61.8%, P=0.034), practiced in hospitals *vs.* clinics or private practices (61.8% *vs.* 50.0%, P=0.006), were aware *vs.* unaware of the recommendations (64.7% *vs.* 52.9%, P=0.02), and had vs. had not read the recommendations (62.7% *vs.* 50.0%, P=0.01). Most participants (93.5%) reported the recommendations to be feasible in their settings. Obstacles to implementation included lack of medication availability (8/20), lack of time to read the recommendations (8/20), lack of awareness of the recommendations (2/20), and limited infrastructure (2/20).

Conclusions Most pediatricians in Indonesia have moderately good adherence to the *2016 IPS Recommendations for the Management of Febrile Seizures*. Awareness of the recommendations needs to be raised further and limitations in medication distribution and infrastructure need to be overcome for better adherence. **[Paediatr Indones. 2023;63:119-28; DOI: https://doi.org/10.14238/pi63.2.2023.119-28].**

Keywords: *febrile seizures; adherence; recommendations*

Febrile seizures are seizure episodes associated with fever and not due to central nervous system infections, intracranial pressure elevation, or neurological or metabolic disorders, in a child with no previous history of non-febrile seizures.[1,2] Febrile seizures most commonly occur in children aged six months to five years, with a peak incidence at 18 months. It is rare in children younger than six months and older than three years.[1,3,4] The incidence of febrile seizures is higher in Asian populations, such as in Japan (3.4-9.3%), India (5-10%), and Guam (14%), and lower in Western European and North American populations (2-5%).[3-5]

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Febrile seizures are generally harmless and self-limiting; most cases will resolve spontaneously by school age.[5] Febrile seizures have been shown not to cause cognitive or academic impairment. Patients with non-recurrent simple febrile seizures have the same risk of developing epilepsy at age 7 years as the general population.[4] However, such patients have a 33% risk of recurrence of the febrile seizures themselves.[6]

Even though febrile seizures are benign, the first seizure episode may leave a psychological impact on parents, including fear of their child's death, fear of epilepsy, sleep disturbances, increased perception of child vulnerability, and increased anxiety and dysfunction scores.[7,8] Moreover, other conditions mimicking febrile seizures, such as central nervous system (CNS) infection, may be life-threatening.[9] Rarely, complications such as febrile status epilepticus may occur.[8] Therefore, the approach to patients with febrile seizures should aim to accurately diagnose the condition while ruling out differential diagnoses, to prevent both overdiagnosis that leads to overprescribing and unnecessary supporting examinations, and underdiagnosis of other conditions, especially CNS infection, that may be fatal if not adequately treated.

In 2016, the *Indonesian Pediatrics Society* (IPS) issued Recommendations for the Management of Febrile Seizures.[1] However, to date, no study has evaluated whether these recommendations are being followed in practice. This study aimed to assess the adherence of pediatricians in Indonesia to the 2016 IPS febrile seizure recommendations, as well as to identify factors influencing adherence.

Methods

This cross-sectional study took place from September 2020 to February 2021. E-mails were sent to all IPS member pediatricians by the official IPS e-mail list administrator. The investigators did not have access to the recipients' individual e-mail addresses. The e-mail contained an explanation of the study and a link to an online questionnaire. Inclusion criteria for participation in the study was pediatricians practicing in Indonesia who were members of the IPS. We excluded those who failed to complete the questionnaires by the end of the study period.

Two types of data were collected, namely demographic and specific data. We collected data on participants' age, year of completion of their pediatric residency or subspecialty training, practice region, type of practice, number of patients with febrile seizures managed per month, and history of attending lectures or teaching sessions on the *2016 IPS Recommendations for the Management of Febrile Seizures*. There were fourteen "select-all-that-apply" questions regarding the participants' adherence to the IPS febrile seizure recommendations, including indications, types, and doses of pharmacological treatment, indications for supporting examinations including lumbar puncture, electroencephalography (EEG), and neuroimaging (CT/MRI), and risk factors for recurrent seizures and epilepsy. In addition, we asked participants whether they thought the recommendations were feasible in their practice settings. The participants filled the questionnaire written in Bahasa. The full English translated questionnaire is provided in the **Appendix**.

We assigned a score of 1 for each answer that was in concordance with the IPS recommendations and 0 for each answer that deviated from the recommendations. The lowest and highest total scores possible were 0 and 34, respectively. Scores were expressed as raw scores and percentage of highest possible score, calculated as raw score divided by 34 then multiplied by 100%. We also evaluated adherence to individual points of management in the recommendations, including indications, types of drugs, and doses of intermittent and maintenance anticonvulsants, as well as indications for supporting examinations such as lumbar puncture, electroencephalography (EEG), and neuroimaging (CT/MRI).

The data collected was processed using *SPSS v. 20.0* (*IBM Inc*., Armonk, New York). Normality of the total score data was assessed using the Kolmogorov-Smirnov test. For comparisons between two groups, we used the independent t-test for normally distributed data and the Mann-Whitney test, otherwise. For comparisons between more than two groups, we used the one-way ANOVA, with the Kruskal-Wallis test as the non-parametric alternative. Chi-square or Fisher's exact tests were used to compare nominal data. A P value of <0.05 was considered to be statistically significant. The study protocol was approved by the Medical Research Ethics Committee of Universitas Indonesia Faculty of Medicine.

Results

We obtained 308 responses to the online questionnaire. Participant characteristics are presented in **Table 1**. Most participants (88.6%) were aged 31 to 60 years, with 25.3% aged 31-40 years, 39.0% aged 41-50 years, 25.0% aged 51-60 years, 8.1% aged 61-70 years, and 2.6% aged >70 years. Most participants had completed their pediatric residency within the last ten years (61.7%), worked in secondary or tertiary referral hospitals (58.1%), managed 0-5 patients with febrile seizures a month (57.1%), and practiced in urban areas (71.1%). The majority of participants were aware of the existence of the recommendations (93.2%) and had read them (91.9%). However, only 57.8% had attended lectures or teaching sessions on the recommendations.

Overall, the median total adherence score was 21.50 (range 7.00 to 34.00) and the mean total score was 22.39 (SD 6.75). A total of 247 participants (80%) scored higher than 50% of the maximum score. Higher median adherence scores were found in those aged 31-60 years than in those aged >60 years (P=0.004) and in those who had completed their residency or subspecialty training <10 years prior to the study than those who had completed their training less recently (P=0.034). In additions, pediatricians who practiced in hospitals had significantly higher scores than those practicing in clinics or private practice (P=0.006). Higher median adherence scores were also seen in those who were aware of the recommendations, compared to those who were not (P=0.02) and those who had read the recommendations, compared to those who had not (P=0.01) (**Table 1**).

Most participants (93.5%) reported that it was feasible to implement the *2016 IPS Recommendations on the Management of Febrile Seizures* in their practice (**Table 2**). The 20 participants who found the recommendations not feasible in their settings reported unavailability of the recommended medications (8/20), lack of time to read the recommendations

Table 1. Participant characteristics and median adherence scores (N=308)

Characteristics	n (%)	Median score		P value
		Raw score	% of highest possible score	
Age				
31-60 years	273 (88.6)	22	64.7	0.004[a]
>60 years	35 (11.4)	18	52.9	
Time since completion				
<10 years	190 (61.7)	22	64.7	0.034[b]
>10 years	118 (38.3)	21	61.8	
Type of practice				
Secondary or tertiary referral hospital	179 (58.1)	22	64.7	0.076[a,c]
Primary care hospital	114 (37.0)	21	61.8	0.006[a,d]
Clinic/private practice	15 (4.9)	17	50.0	
Number of febrile seizure patients managed monthly				
0-5	176 (57.1)	20	60.3	0.053[b]
6-10	97 (31.5)	22	64.7	
>10	35 (11.4)	23	67.6	
Has attended teaching sessions on the IPS Recommendations				
Yes	178 (57.8)	22	64.7	0.153[a]
No	130 (42.2)	21	61.8	
Region of practice				
Urban	219 (71.1)	21	61.8	0.352[a]
Rural	89 (28.9)	22	64.7	
Awareness of the IPS recommendations				
Aware	287 (93.2)	22	64.7	0.02
Unaware	21 (6.8)	18	52.9	
Had read the IPS Recommendations				
Yes	283 (91.9)	22	64.7	0.01
No	25 (8.1)	17	50.0	

[a]Mann-Whitney test; [b]Kruskal-Wallis test; [c]secondary/tertiary referral vs. primary care hospital; [d]hospital (all types) *vs.* clinic/private practice

(8/20), lack of awareness of the recommendations (2/20), and limited infrastructure (2/20), as hurdles to recommendation adherence. Other hindrances, mentioned by one participant each, were lack of confidence in the validity of the recommendations, lack of knowledge on the difference between the 2006 and 2016 recommendations, and not having received the recommendations. One participant reported being able to partially implement the recommendations. We did not find any significant difference in feasibility of implementation by type of practice or practice region (**Table 2**). Adherence rates to individual points of management in the recommendations can be seen in **Table 3**.

Discussion

The majority of our study participants were aged 31-60 years (273/308; 88.6%). This could have been due to this age group being more proficient in using technology, thus more likely to complete the online questionnaire, or due to fewer pediatricians aged >60 years still actively practicing. There were more participants from urban (71.1%) than rural (28.9%) areas, which could have been due to differences in telecommunication network accessibility and/or uneven geographic distribution of pediatricians. We found that adherence to the recommendations was significantly higher in the 31-60 year-old group than in the >60 year-old group (median score 64.7% vs. 52.9% of the highest possible score, respectively, P=0.004). This finding was in line with a prior systematic review in which three out of 12 studies demonstrated that age and/or experience was a determinant of healthcare practitioners' adherence to clinical guidelines.[10] Younger pediatricans presumably have less experience and tend to consult recommmendations more than their older counterparts. This may also explain the significantly higher adherence in those who had

Table 2. Feasibility of the *2016 IPS Recommendations on the Management of Febrile Seizures* according to participants' nature of practice

Variables	Feasible (n=288)	Not feasible (n=20)	P value
Type of practice, n (%)			
Secondary or tertiary referral hospital	170 (94.9)	9 (5.1)	0.205[a,c]
Primary care hospital	104 (91.2)	10 (8.8)	1.00[b,d]
Clinic/private practice	14 (93.3)	1 (6.7)	
Practice region, n (%)			
Urban	203 (92.7)	16 (7.3)	0.452[a]
Rural	85 (95.5)	4 (4.5)	

[a]Chi-square test; [b]Fisher's exact test; [c]secondary/tertiary *vs.* primary care hospital; [d]hospital (any type) *vs.* clinic/private practice

Table 3. Adherence to the *2016 IPS Recommendations on the Management of Febrile Seizures* by point of management

Point of management	Adherence rate, %
Intermittent anticonvulsant medication	
Indication	22.6
Types of drugs	22.7
Dosage	24.0
Maintenance anticonvulsant medication	
Indication	63.6
Types of drugs	43.8
Dosage	37.3
Indications for supporting examinations	
Lumbar puncture	28,9
EEG	30.2
Neuroimaging (CT/MRI)	55.8

completed their residency or subspecialty training <10 years *vs.* >10 years prior (median score 64.7% vs. 61.8% of the highest possible score , respectively; P=0.034). However, we did not further analyze participants' highest degree of pediatric training.

The median scores of participants who worked in any type of hospital (64.7% and 61.8% of the highest possible score for secondary/tertiary referral and primary care hospitals, respectively) were significantly higher than that of participants working in clinics or private practice (50.0% of the highest possible score) (P=0.006). However, scores did not differ significantly by hospital type. Compared to pediatricians working in clinics or private practice, those working in hospitals may be more likely to keep up with updates in the field, obtain more support to attend continuing medical education events, be more likely to encounter patients with febrile seizures, and perform or order supporting examinations such as lumbar puncture or EEG more frequently.

There was a trend toward higher adherence scores in participants who had attended lectures or socialization on the recommendations than in those who had not; but, the difference did not reach statistical significance (P=0.153). However, being aware of and having read the recommendations were significantly associated with higher adherence scores (P=0.02 and P=0.01, respectively), while 178/287 (62%) participants who were aware of the recommendations had received some form of lecture or socialization. This finding suggests that actively reading the recommendations in detail is more effective than passive attendance of lectures or socializations, and raises questions on the methods of delivery and knowledge assessment following such socializations. A previous systematic review also identified that giving reminders to follow guidelines and feedback on guideline compliance were effective in raising adherence to clinical practice guidelines.[11]

Overall, most participants (93.5%) reported that implementation of the recommendations was feasible. Perception of feasibility did not significantly differ by type or region of practice. This finding shows that the existing recommendations are, in general, well-suited for a variety of settings in Indonesia. Therefore, practice settings in which the recommendations were found to not to be feasible warrant close evaluation of available resources with regards to drug distribution and availability, human resources and clinician skills, as well as healthcare facility infrastructure.

Although the overall median adherence score was 21.50 out of a maximum possible score of 34 (63% of the maximum score), when adherence for individual management points were examined, we found that adherence rates varied from 22.7% to 63.6%. The adherence rate was highest for indications of maintenance anticonvulsant medication (63.6%) and lowest for the types of intermittent anticonvulsants used, i.e., whether participants prescribed the appropriate anticonvulsant drug recommended for intermittent treatment (22.7%). This behavior may lead to over- and undertreatment of febrile seizure patients, with ensuing costs and risk of adverse effects. Adherence to indications of ancillary tests also varied and was lowest for the indications of lumbar puncture (28.9%). A study on the management of central nervous system infections in Indonesia reported that more recently qualified neurologists and those working in regional hospitals tended to perform lumbar punctures more readily. Considerations not to perform lumbar puncture included unfavorable patient condition, lack of lumbar puncture kits, lack of laboratory facilities to perform cerebrospinal fluid analysis, and fear of blame should complications occur.[12] Hesitation in performing lumbar puncture when indicated may lead to underdiagnosis of potentially life-threatening or disability-causing central nervous system infections. On the other hand, keeping to the indications in ordering ancillary tests also prevents overuse of tests, such as EEG and neuroimaging, that are unlikely to contribute to clinical decision-making, especially in patients with simple febrile seizures. Overuse of these modalities put unnecessary pressure on already strained resources.[13] For these reasons, the knowledge and practice of pediatricians in high-volume conditions such as febrile seizures needs to be periodically assessed and evaluated.

In our study, we sought to obtain a representative sample of pediatricians practicing in Indonesia. However, we were unable to ensure a thorough distribution of the questionnaire and acquisition of responses due to the voluntary nature of participant enrollment, as well as the wide variation in internet accessibility across the country.

We conclude that although overall, pediatricians

in Indonesia have moderately good adherence to the *2016 IPS Recommendations on the Management of Febrile Seizures*, adherence needs to be improved when considering specific management points. Younger age, less time since completion of pediatric residency or subspecialty training, being in a hospital type of practice, higher awareness of the recommendations, and having read the recommendations are factors with significant positive associations to recommendation adherence scores. Overall, the recommendations are considered to have good feasibility. Our findings suggest the need for more effective delivery methods for socialization of such recommendations, as well as periodic reminders and assessment of pediatricians' adherence to the recommendations, followed by feedback. Hindrances to the implementation of the recommendations also need to be addressed.

Conflicts of interest

None declared.

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Appendix

Study questionnaire

Name (optional) _____

Variables	Score
Age	Not scored
☐ <30 years ☐ 31-40 years ☐ 41-50 years ☐ 51-60 years ☐ 61-70 years ☐ >70 years	
Practice setting 1	Not scored
☐ Type A (tertiary referral) hospital ☐ Type B (secondary referral) hospital ☐ Type C (primary care) hospital ☐ Type D (primary care) hospital ☐ Clinic ☐ Private practice	
Practice setting 2 (if any)	Not scored
☐ Type A (tertiary referral) hospital ☐ Type B (secondary referral) hospital ☐ Type C (primary care) hospital ☐ Type D (primary care) hospital ☐ Clinic ☐ Private practice	
Practice setting 3 (if any)	Not scored
☐ Type A (tertiary referral) hospital ☐ Type B (secondary referral) hospital ☐ Type C (primary care) hospital ☐ Type D (primary care) hospital ☐ Clinic ☐ Private practice	
Province of practice	Not scored
☐ Aceh ☐ North Sumatera ☐ West Sumatera ☐ Riau ☐ Riau Islands ☐ Jambi ☐ Bengkulu ☐ South Sumatera ☐ Bangka Belitung Islands ☐ Lampung ☐ Banten ☐ Jakarta Special Capital Region ☐ West Java ☐ Central Java ☐ Yogyakarta Special Region ☐ East Java ☐ Bali ☐ West Nusa Tenggara ☐ East Nusa Tenggara ☐ West Kalimantan ☐ South Kalimantan ☐ Central Kalimantan ☐ East Kalimantan	

☐ North Kalimantan
☐ North Sulawesi
☐ GorontaloWest Sulawesi
☐ Southeast Sulawesi
☐ Central Sulawesi
☐ Maluku
☐ North Maluku
☐ Papua
☐ West Papua

Area of practice — Not scored

☐ City
☐ Regency

City/regency of practice (optional; if more than one please specify): — Not scored

_____

Highest level of pediatric training — Not scored

General pediatrician
Consultant, please specify subspecialty field: _____

Year of completion of highest level of pediatric training — Not scored

☐ <5 years ago
☐ 6-10 years ago
☐ >10 years ago

How many patients with febrile seizures do you manage in a month? — Not scored

☐ 0-5
☐ 6-10
☐ >10

Are you aware of the 2016 IPS Recommendations for the Management of Febrile Seizures? — Not scored

☐ Yes
☐ No

Have you read the *2016 IPS Recommendations for the Management of Febrile Seizures*? — Not scored

☐ Yes
☐ No

How did you learn about the *2016 IPS Recommendations for the Management of Febrile Seizures*? — Not scored

☐ Received the Recommendations booklet at an IPS event
☐ Website
☐ Seminar or other continuing professional development event
☐ Other, please specify: _____

Have you attended presentations or teaching sessions on the *2016 IPS Recommendations for the Management of Febrile Seizures*? — Not scored

☐ Yes
☐ No

In your opinion, are the *2016 IPS Recommendations for the Management of Febrile Seizures* feasible in your settings? — Not scored

Yes
No, why? _____

In your practice, in which of the following indications do you administer intermittent anticonvulsants in a patient with febrile seizures? Select all that apply; if your answer is not available please specify in "Other."

☐ Focal seizures	0
☐ Prolonged seizures	0
☐ Severe neurologic abnormality	1
☐ Recurring >4 episodes a year	1
☐ Age <6 months	1
☐ Seizures occurring at a temperature of <39^{o}C	1
☐ Rapid rise in temperature	1
☐ Other, please specify: _____	0

In your practice, which drug(s) do you prescribe as an intermittent anticonvulsant? Select all that apply; if your answer is not available please specify in "Other."	
☐ Phenobarbital	0
☐ Valproic acid	0
☐ Oral diazepam	1
☐ Rectal diazepam	1
☐ Other: _____	0
In your practice, what is the dose of the intermittent anticonvulsant you prescribe? Select all that apply; if your answer is not available please specify in "Other."	
☐ Oral diazepam 0.3 mg/kg	1
☐ Oral diazepam 0.5 mg/kg	0
☐ Rectal diazepam 0.3 mg/kg	0
☐ Rectal diazepam 0.5 mg/kg	1
☐ Phenobarbital 3-4 mg/kg/dose, once to twice daily	0
☐ Phenobarbital 15-40 mg/kg/day in 2 doses	0
☐ Valproic acid 3-4 mg/kg/dose, once to twice daily	0
☐ Valproic acid 15-40 mg/kg/day in 2 doses	0
☐ Other, please specify: _____	0
In your practice, for how long do you administer intermittent anticonvulsant treatment? Select all that apply; if your answer is not available please specify in "Other."	
☐ First 12 hours of fever	0
☐ First 24 hours of fever	0
☐ First 48 hours of fever	1
☐ 1 week (score 0)	0
☐ 1 month (score 0)	0
☐ 1 year (score 0)	0
☐ 2 years (score 0)	0
☐ Other, please specify: _____	0
In your practice, for what indications do you prescribe maintenance anticonvulsants in a patient with febrile seizures? Select all that apply; if your answer is not available please specify in "Other."	
☐ Focal seizures	1
☐ Prolonged seizures	1
☐ Presence of a clear neurologic abnormality	1
☐ Recurring >4 episodes a year	0
☐ Age <6 months	0
☐ Seizures occurring at a relatively low temperature	0
☐ Rapid rise in temperature	0
☐ Other, please specify: _____	0
In your practice, which drug(s) do you prescribe as maintenance anticonvulsant? Select all that apply; if your answer is not available please specify in "Other."	
☐ Phenobarbital	1
☐ Valproid acid	1
☐ Oral diazepam	0
☐ Rectal diazepam	0
☐ Other, please specify: _____	0
In your practice, what is the dose of the maintenance anticonvulsant you prescribe? Select all that apply; if your answer is not available please specify in "Other."	
☐ Oral diazepam 0.3 mg/kg	0
☐ Oral diazepam 0.5 mg/kg	0
☐ Rectal diazepam 0.3 mg/kg	0
☐ Rectal diazepam 0.5 mg/kg rectal diazepam	0
☐ Phenobarbital 3-4 mg/kg/dose, once to twice daily	1
☐ Phenobarbital 15-40 mg/kg/day in 2 doses	0
☐ Valproic acid 3-4 mg/kg/dose, once to twice daily	0
☐ Valproic acid 15-40 mg/kg/day in 2 doses	1
☐ Other, please specify: _____	0

In your practice, for how long do you administer maintenance anticonvulsant treatment? Select all that apply; if your answer is not available please specify in "Other."

☐ First 12 hours of fever	0
☐ First 24 hours of fever	0
☐ First 48 hours of fever	0
☐ 1 week	0
☐ 1 month	0
☐ 1 year	1
☐ 2 years	0
☐ Other, please specify: _____	0

In your practice what are the indications of lumbar puncture in a patient with febrile seizure? Select all that apply; if your answer is not available please specify in "Other."

☐ Meningeal signs present	1
☐ History and physical examination are suggestive of central nervous system infection	1
☐ Prior antibiotic use	1
☐ Mandatory in a febrile seizure patient aged <18 months	0
☐ Not indicated in febrile seizures	0
☐ Other, please specify: _____	0

In your practice, in what cases would you order an electroencephalography (EEG) in a patient with febrile seizures? Select all that apply; if your answer is not available please specify in "Other."

☐ Focal seizures	1
☐ Prolonged seizure	0
☐ Family history of epilepsy	0
☐ Presence of clear neurologic abnormalities	0
☐ Other, please specify: _____	0

In your practice, in what cases would you order a neuroimaging study (CT scan or MRI) in a patient with febrile seizures? Select all that apply; if your answer is not available please specify in "Other."

☐ Presence of a persistent focal neurologic deficit	1
☐ Focal seizures	0
☐ Prolonged seizures	0
☐ Family history of epilepsy	0
☐ Other, please specify: _____	0

In your practice, which antipyretic agent do you prescribe for use during fever? Select all that apply; if your answer is not available please specify in "Other."

☐ Paracetamol	1
☐ Ibuprofen	1
☐ Aspirin	0
☐ Naproxen	0
☐ Other, please specify: _____	0

What do you think are the risk factors for recurrence of febrile seizures? Select all that apply; if your answer is not available please specify in "Other."

☐ Age <12 months	1
☐ Family history of febrile seizures or epilepsy	0
☐ Temperature of <39°C during seizure	1
☐ Short interval between onset of fever and seizure	1
☐ First febrile seizure is a complex febrile seizure	1
☐ Suspicion of central nervous infection on first febrile seizure	0
☐ Other, please specify: _____	0

What do you think are the risk factors for epilepsy in a patient with febrile seizures? Select all that apply; if your answer is not available please specify in "Other."

☐ Presence of a clear neurologic or neurodevelopmental abnormality before the first febrile seizure (score 1)	1
☐ Complex febrile seizures	1
☐ History of epilepsy in a parent or sibling	1
☐ Recurrent febrile seizures >4 episodes per year	1
☐ Excessive use of maintenance or intermittent anticonvulsants	0
☐ Other, please specify: _____	0

Do you think the 2016 IPS Recommendations for the Management of Febrile Seizures are useful in your daily practice?

☐ Yes
☐ No