

Prescribing patterns, indications and adverse events of ibuprofen in children: results from a national survey among Italian pediatricians

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Background: Though ibuprofen has well recognized safety profile, in last decade with its growing over-the-counter use there has been increased concern of adverse events in children.

Objective: To evaluate the main indications and the most frequent adverse events related to ibuprofen administration in children with fever.

Methods: A specific questionnaire-form regarding the management of ibuprofen therapy in children was distributed among a sample of pediatricians all over the Italian territory between September and October 2020. An electronic data collection through a specifically designed web-based platform was performed among the participating pediatricians. Total 181 pediatricians completed the survey.

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Pediatric Evidence And Research Learning Snippet



Prescribing patterns of ibuprofen in children

Results:

- In case of fever, 177 (98%) Pediatricians prescribed Paracetamol as the first choice and only 4 (2%) preferred ibuprofen as first choice.
- Administration of Paracetamol alone used in 71% whereas **combined/ alternating treatment with ibuprofen was in 29.2% prescriptions.**
- Common Indications for ibuprofen** were Musculoskeletal pain (30%), Upper respiratory tract infection (20%), Headache (15%), Postsurgical pain (9%).
- Each administration of ibuprofen mostly consisted in 10 mg/kg (41%), followed by 5 mg/kg (31%), 7.5 mg/kg (22%) and 15 mg/kg (7%).
- The treatment is usually prolonged for 3 days in 54% of cases, even though 29% of pediatricians declared to continue the administration up to the disorder resolved.

Adverse events:

- Total 191 adverse events from 35% of participating pediatricians.**
- Most Common: GI bleeding - 15.7%, epigastric pain 15.1%**, non-specified abdominal pain 11.1% and nausea/vomiting 11%.
- Among allergic reactions 21% skin rash , 6.8% other hypersensitivity reactions and 2.1% angioedema.
- Severe adverse events: Kidney damage (3.1%)**, Complicated infections (0.5%), pneumonia associated empyema (0.5%), soft tissue infection (0.5%), DIC (0.5%).
- The adverse events led to a hospitalization in 12% of children.
- In 53/191 cases (28%) the adverse events were related to a wrong dosage or prolonged therapy or errors in frequency of administration.**

Conclusion: The survey demonstrate a sufficient awareness of Italian pediatricians regarding ibuprofen-prescribing patterns both in the feverish child as well as in other indications.

Key Message: There is relatively high percentage of pediatricians performing a combining/ alternating use of paracetamol and ibuprofen highlighting the need for further educational efforts.

EXPERT COMMENT

“The reported adverse events of ibuprofen were mild in most of the cases and often related to errors in dosage, frequency and treatment duration. Highlighting the need for a major caution of its use, both by practitioners and patients.”

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With warm regards,

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Reference

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