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Communication

Ocular and Sleep-Related Presentations During Pediatric Seasonal Influenza: A Clinical Commentary Including Kelleni’s Protocol

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Abstract

Seasonal influenza in children is usually recognized as acute febrile respiratory syndrome. This commentary highlights recent clinical observations in which influenza-like illness was accompanied by conjunctivitis and sleep-related breathing abnormalities (new snoring and brief apnea-like events), sometimes accompanied by oxygen desaturation. Because these features are not classic manifestations of seasonal influenza, they are best framed as associated findings that may reflect upper-airway inflammation, post-nasal drip, or concomitant lower-respiratory involvement. The commentary discusses the Egyptian/African approach using Kelleni’s protocol in its outpatient management and calls for independent monitoring by pediatric and ENT/sleep clinicians to determine whether a reproducible pattern is emerging across settings.

Keywords: seasonal influenza; H3N2; conjunctivitis; snoring; sleep-disordered breathing

A recent WHO Global Respiratory Virus Activity (GRVA) update for week 7 (ending 15 February 2026), showed that influenza, SARS-CoV-2, and RSV were all co-circulating globally, but influenza remained the dominant virus overall (global positivity around 15%), while SARS-CoV-2 and RSV activity remained stable and low overall. However, influenza transmission showed substantial variability by country: some countries in Central America and the Caribbean, Tropical South America, Europe, and Eastern Asia reported very high influenza positivity (>30%), whereas other countries were closer to seasonal thresholds or reported only modest activity [1].

Interestingly, the GRVA updates indicated that influenza activity in Northern Africa, including Egypt, reached very high levels in week 6 (with >30% positivity reported in countries in the region)[2], while by week 7 influenza positivity was reported as around 15% in northern-hemisphere temperate/subtropical areas.

Separately, according to a GISRS (WHO Global Influenza Surveillance and Response System) virological surveillance dashboard (Power BI), influenza A(H3) detections in Egypt have exceeded influenza A(H1) detections from mid-December 2025 through the present, indicating a recent predominance of influenza A(H3N2) over A(H1N1) among subtyped influenza A samples in that period similar to most of other zones globally[3]. Interestingly, influenza A(H3N2) is undergoing a notable round of antigenic drift driven by the rapid expansion of subclade K, which shows evidence of immune evasion, reflected by markedly reduced haemagglutination inhibition (HAI) reactivity to ferret antisera raised against the Northern Hemisphere 2025/26 vaccine strains [4]

I would like to report that since last December, I have repeatedly observed children with influenza-like illness marked by rhinorrhea, high fever and persistent cough who also developed conjunctivitis and new sleep-related breathing abnormalities, including new-onset snoring, brief witnessed apneas, and occasionally nocturnal oxygen desaturation to about 88% by pulse oximeter that persisted into daytime though within a higher range. Because conjunctivitis is not a classic

symptom of seasonal influenza, and sleep-disordered breathing is typically a separate pediatric condition linked to respiratory infections as potential triggers or contributors rather than a defining influenza manifestation [5], these findings should be presented as associated observations that should be independently monitored by other clinicians such as pediatricians and ENT/sleep specialists both now and over the coming seasons to confirm or refute whether a consistent pattern is evolving and emerging across settings. Interestingly, the sleep-disordered breathing features, i.e., new snoring and brief witnessed apneas, were observed only during the acute infection and resolved after clinical recovery.

Importantly, Kelleni’s home management antiviral protocol (nitazoxanide, ibuprofen and azithromycin) was generally sufficient for outpatient care[6]. However, when high fever persisted beyond 36 hours and defervescence could not be maintained without ibuprofen, amoxicillin/clavulanate was immediately added suggesting a pneumonia-spectrum illness with azithromycin-resistant bacterial component or bacterial superinfection that reason sustained daytime hypoxemia, while upper-airway inflammation and secretions likely worsened snoring and transient obstruction during sleep.

Notably, the cough was often reported as troublesome, accompanied by prominent post-nasal drip and nocturnal coughing with vomiting on waking, in the absence of reflux symptoms. In some children, the cough persisted for 7–10 days after resolution of other manifestations, including normalization of oxygen saturation; this trajectory is compatible with a relatively short post-infectious cough driven by transient airway inflammation and increased cough reflex sensitivity, while ongoing upper airway cough subacute inflammation related to post-nasal drip may also have contributed to nocturnal symptoms. However, though I agree that bronchodilators and/or corticosteroids have mostly no benefit in management of post infectious cough[7], I suggest that symptom control and perceived recovery appeared to improve more often with a personalized supportive regimen focused on secretion management and nocturnal cough relief[8], most commonly mucolytic/expectorant syrups (e.g., bromhexine-based preparations and/or enzyme-containing syrups such as alpha-amylase where locally used), night-time antitussives (including herbal remedies and cloperastine), and loratadine when an upper-airway allergic/post-nasal drip component was prominent; as well as in selected older children, a combination syrup containing ibuprofen with a decongestant was also used. The selection should be always individualized and conservative, with careful attention to age, dosing, comorbidities, and avoidance of overlapping products.

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Availability of data and material: N/A.

Competing interests: None.

References

1. World Health Organization. Global Respiratory Virus Activity: Weekly update for week 7, ending 15 February 2026 (Update No. 566). 2026.
2. World Health Organization. Global Respiratory Virus Activity: Weekly Update N° 565. 2026.
3. World Health Organization. Global Influenza Surveillance and Response System (GISRS). Power BI Report. Accessed 2026 Mar 1. Available from: <https://app.powerbi.com/view?r=eyJrIjojYWU4YjUyN2YtMDBkOC00MG11LTlhN2UtZGE5NThjY2E1ZThhliwidCI6ImY2MTBjMG13LWJkMjQtNGIzOS04MTBiLTNkYzI4MGFmYjU5MCI6ImMiOjh9>.

4. Kirsebom FC, Thompson C, Talts T, et al. Early influenza virus characterisation and vaccine effectiveness in England in autumn 2025, a period dominated by influenza A(H3N2) subclade K. *Eurosurveillance* 2025;30:2500854.
5. Gutierrez MJ, Nino G, Landeo-Gutierrez JS, et al. Lower respiratory tract infections in early life are associated with obstructive sleep apnea diagnosis during childhood in a large birth cohort. *Sleep* 2021;44:zsab198.
6. Kelleni MT. Real-life practice of the Egyptian Kelleni's protocol in the current tripledemic: COVID-19, RSV and influenza. *J Infect* 2023;86:154-225.
7. Liang K, Hui P, Green S. Postinfectious cough in adults. *Canadian Medical Association Journal* 2024;196:E157.
8. Kelleni MT. First use of nitazoxanide in Kelleni's protocol for managing severe bronchiolitis in a 9-month-old infant: A case report and review of literature. *World Journal of Clinical Cases* 2025;13:113655.

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