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Seasonal flu and COVID-19 recommendations for children, adolescents and young adults with diabetes

COVID-19 is still a health problem and it is expected to grow in the coming weeks, especially after the school opens in mid-September (1). Seasonal flu usually appears in mid-October/November and has symptoms overlapping with COVID-19. For these reasons the Italian Society for Pediatric Endocrinology and Diabetes formulated the following recommendations.

1. Type 1, type 2 and monogenic diabetes in children, adolescents and young adults do not have a higher risk of morbidity and mortality due to COVID-1 and/or seasonal flu. However, the glycemic imbalance due to disease itself suggests taking all possible preventive measure to minimize contagion (2,3).
2. Seasonal flu (influenza) vaccination is recommended in all children, adolescents and young adults, aged 6 months to 18 years (25 years), regardless of their health status, if they have type 1, type 2 or monogenic diabetes (4).
3. In the meantime we are waiting for an effective and safe vaccine against SARS/CoV/2, it is recommended to maintain active safeguards measures, such as spacing, face mask and adequate hygiene and sanitation.
4. If you have a fever $>37,5^{\circ}\text{C}$ ($99,5^{\circ}\text{F}$) for 2 or more days, nasopharyngeal swab is recommended.
5. If COVID-19 negative and otherwise advised by your pediatrician/family doctor or diabetes

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team, use only paracetamol or antipyretics.

6. If COVID-19 positive, oral dexamethasone may be useful in pediatric patients with respiratory disease only for those requiring mechanical ventilation. The use of dexamethasone is generally not recommended for pediatric patients who require only low levels of oxygen support (i.e., nasal cannula only) (5). In that case, tight glyceic control is highly recommended.

7. Tight glyceic control is recommended and, in any case, do not interrupt insulin administration via subcutaneous insulin infusion or multiple daily injections.

8. Continuous glucose monitoring, real time or intermittently scanning is recommended whenever possible.

9. If in hyperglycemia, especially if ketonemia >3 mg/dl (or ketonuria), and no measures work to keep blood glucose in range (change of the infusion set, correction boluses, etc.) consult the emergency room.

10. In case of overwhelming vomiting, call the emergency room.

These recommendations are based on the authors' personal experience and a review of the scant literature on the subject. The goal is to distinguish the symptoms (fever, cough, and sore throat) due either to seasonal flu or COVID-19. From our experience, both seasonal flu and COVID-19 in children and in adolescents with diabetes, usually heal quite quickly, being completely asymptomatic or with mild to moderate symptoms, requiring only rest, hydration and anti-pyretic drugs (paracetamol and/or ibuprofen) .

In conclusion, not all fever and cough, especially in pediatrics, will be COVID-19, and the only effective mean to distinguish between the two diseases will be nasopharyngeal swab.

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