Epidemiology and Symptom Presentation among Outpatient Pediatric Patients tested for SARS-CoV-2: Variations across Pre-Delta, Delta, and Omicron Waves

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BACKGROUND

• Understanding the epidemiology and presenting symptoms associated with SARS-CoV-2 infection in children, and how these might change across variants, is essential, with implications for public health guidance and policy
• Vast majority of research in pediatrics on epidemiology and symptomatology is in hospitalized patients

OBJECTIVE

1. Evaluate presenting symptoms, epidemiological risk factors associated with pediatric SARS-CoV-2 infection in an outpatient setting
2. Assess the difference in these factors cross difference variant predominant waves

METHODS

• Retrospective cohort of children prospectively identified by algorithm to undergo SARS-CoV-2 PCR testing in primary care clinics from November 2020 – January 2022
• Multivariable logistic regression assessed factors associated with a positive test
• Bivariable analysis compared factors for positive tests during variant periods

RESULTS

• 361/2264 (15.9%) positive for SARS-CoV-2
• Positivity rate by variant period: 11% (pre-delta), 12% (delta) and 37% (omicron)
• (Bivariable analyses): positivity correlated with COVID-related visit, close contact w/ confirmed case, currently dismissed from school, probable household case, loss of taste/smell, and headache
• (Multivariable analyses): positivity correlated with fever, loss of taste/smell, cough, headache, close contact w/ confirmed case or probable household case.
• Demographic changes in percent positivity across variant waves

CONCLUSIONS

• Shifting symptom presentations with variant strains- with predominance of loss taste/smell during delta compared with pre-delta periods and cough in both the delta and omicron periods.
• Exposure was significantly associated with a positive PCR test and association did not change with variants.
• Exposure most common risk factors than any discriminative symptoms in ambulatory patients.

REFERENCES

•Variant Data. Figure 2. Obtained from: https://covid19.colorado.gov/data