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BACKGROUND & PURPOSE

- Patients with COVID-19 most commonly report respiratory symptoms, with a minority reporting gastrointestinal (GI) symptoms.
 - In a literary review of 12 cohort studies, diarrhea was observed in 2.0-35.6% of patients, nausea in 1-17.3%, vomiting in 1-6.4%, and abdominal pain in 2.2-5.8%.⁶
- Little is known about the symptoms of anosmia/hyposmia, ageusia, and dysgeusia anecdotally seen in COVID-19 patients.
 - Both the American Academy of Otolaryngology-Head and Neck Surgery and ENT UK issued public statements recognizing anosmia, hyposmia, and dysgeusia as possibly associated with SARS-CoV-2 infection.^{9,10}

STUDY DESIGN & METHODS

- We interviewed 7 patients from a family cluster of COVID-19 cases in Denver, CO ranging in age from 17-54 yo via oral inquiries and a questionnaire, collecting data on subject symptoms and their durations.
- Reverse transcriptase-polymerase chain reaction (RT-PCR) was used to confirm 2 of these cases. Both cases were confirmed by Roche cobas 6800 EUA RT-PCR at a certified tertiary care hospital.
- The other 5 cases were presumed based on case proximity, temporal progression, and comparable symptomatic presentation.

RESULTS & FINDINGS

- We report a familial cluster of 7 COVID-19 cases, all 7 of whom reported GI involvement with one or more symptom of: nausea (5/7), diarrhea (4/7), abdominal pain (3/7), anorexia (3/7), and emesis (2/7).
 - Duration of GI symptoms ranged from 2 to 15 days.
- Within the cluster, 5 patients reported sensory symptoms of anosmia/hyposmia (5/7), ageusia/hypogeusia (5/7), and/or dysgeusia (3/7).
 - Subjects with anosmia and ageusia reported that these symptoms always occurred together; neither anosmia nor ageusia were seen independently.
 - Length of anosmia and ageusia ranged from 5 to 29 days (29 days thus far; one patient still experiences persistent anosmia/ageusia at present).

CONCLUSION

- This frequency of GI symptoms is high relative to currently available epidemiological reports, which also infrequently report on sensory symptoms.
- The mechanistic underpinnings of GI and sensory symptoms in COVID-19 warrant close consideration and analysis, especially as it relates to reducing disease transmission.
- COVID-19 exhibits wide variation in duration, severity, and progression of symptoms, even within a cluster.

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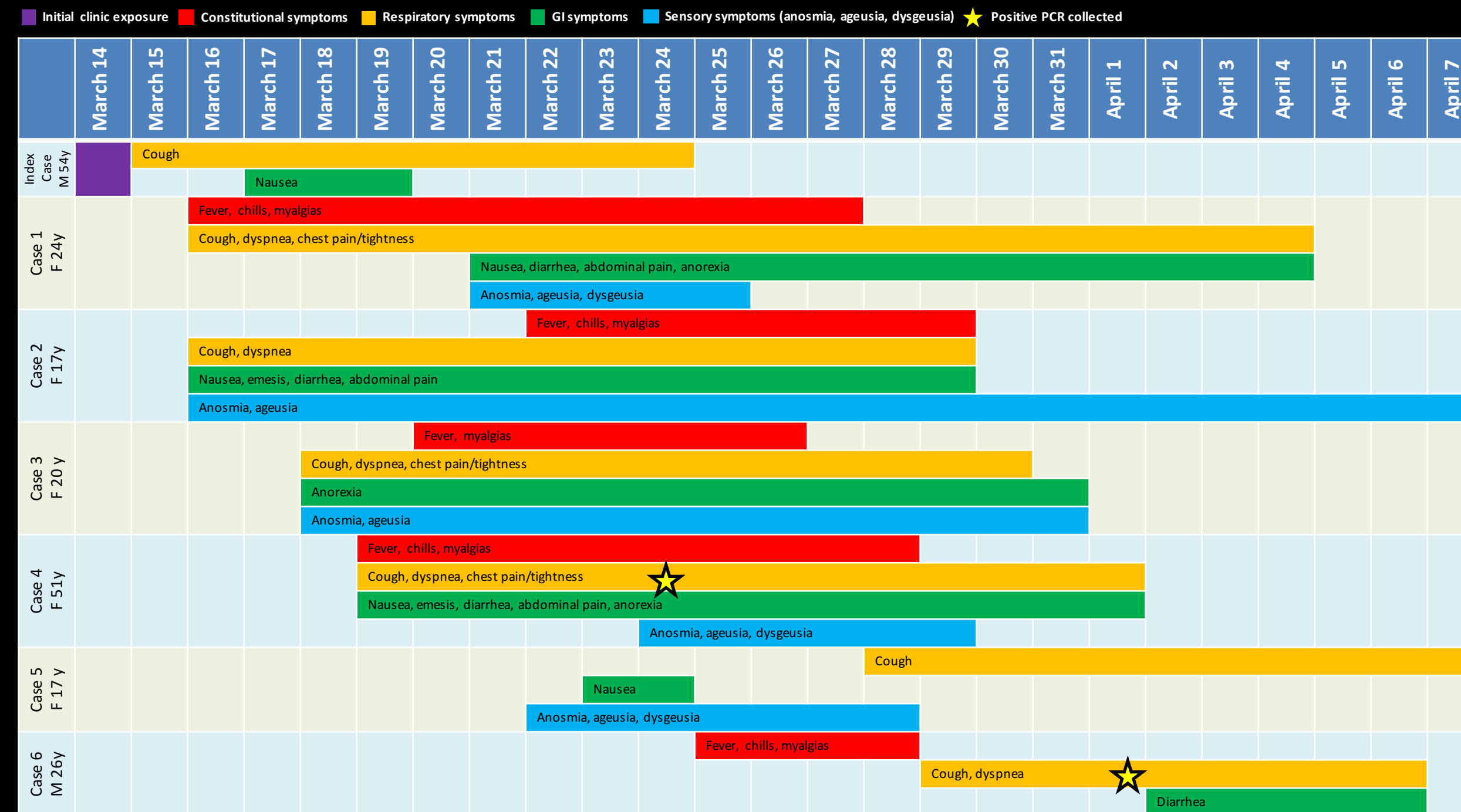


Figure 1. Timeline of Symptoms and Exposure to Index Case in Familial COVID-19 Cluster