Making Sense of Timelines & Guidelines for COVID-19
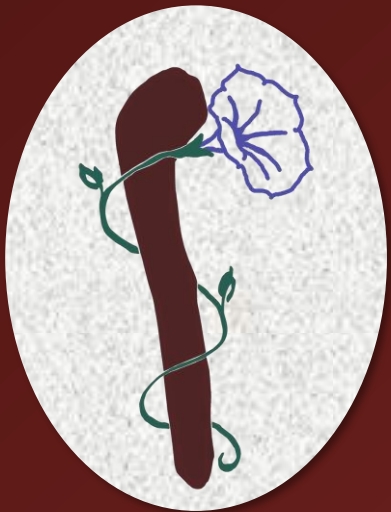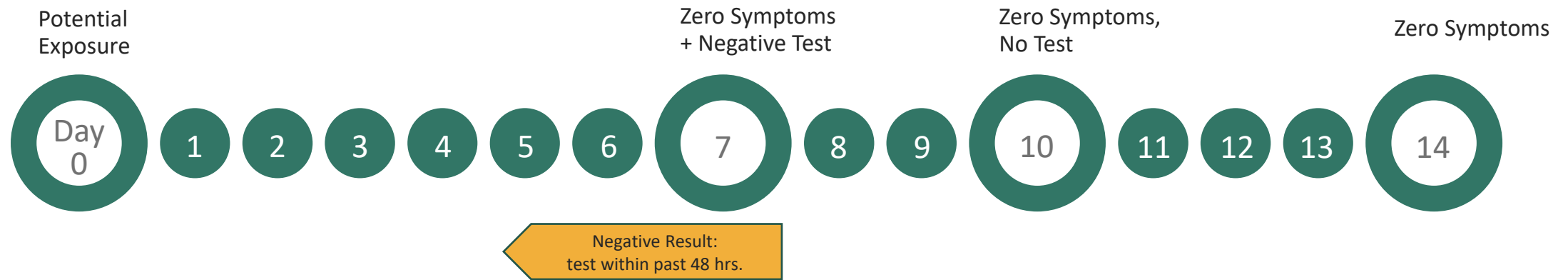
Compiled by
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CDC Quarantine & Testing Recommendations

Potential Exposure

Day 0

1 2 3 4 5 6

Zero Symptoms + Negative Test

7

8 9

Zero Symptoms, No Test

10

11 12 13

Zero Symptoms

14

Negative Result: test within past 48 hrs.

Monitor Symptoms for the full 14 days, regardless of quarantine status

Recommended

14 days of self-quarantine is recommended as the best / safest quarantine option

Alternative #1

If, after:
- 10 days of daily monitoring
- there are **no symptoms** whatsoever

you can ease up on your quarantine.

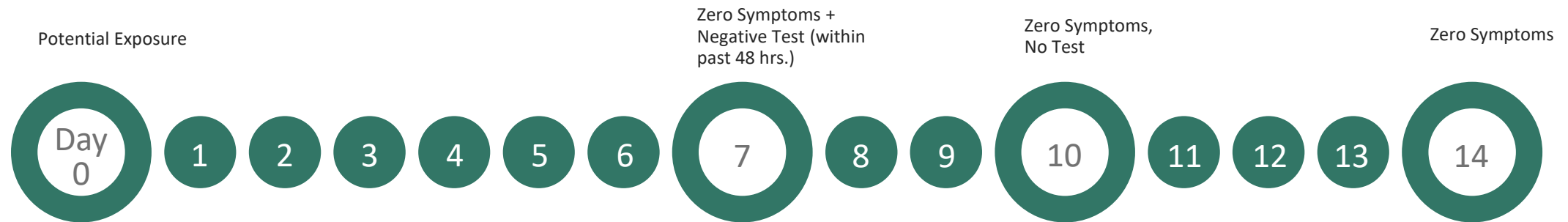Daily monitoring of symptoms should continue for the full 14 days.
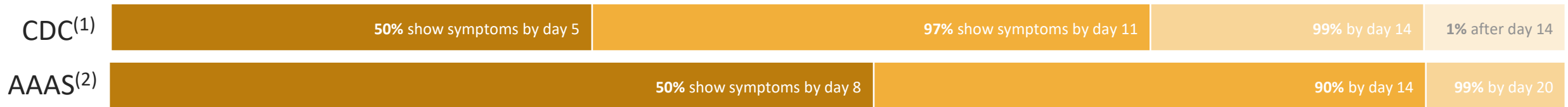
Alternative #2

If, after:
- 7 days of daily monitoring
- there are **no symptoms** whatsoever
- AND there is a **negative test result during days 5-7**

you can ease up on your quarantine.

Daily monitoring of symptoms should continue for the full 14 days.

Why Monitor Symptoms for 14 Days?

Potential Exposure

Zero Symptoms + Negative Test (within past 48 hrs.)

Zero Symptoms, No Test

Zero Symptoms

Day 0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10 — 11 — 12 — 13 — 14

Estimated Incubation Periods for Infected Persons

CDC[1]	**50%** show symptoms by day 5	**97%** show symptoms by day 11	**99%** by day 14	**1%** after day 14

AAAS[2]	**50%** show symptoms by day 8	**90%** by day 14	**99%** by day 20

Week 1

Only about half of those who are infected will show symptoms within the first week.

Week 2

Most (~90%) will show symptoms within two weeks, so it's a lot less likely that someone who's infected won't be aware of it by the end of the second week.

Week 3

There is still a possibility that a person can be infected but not know it (no symptoms) through week three. It's a lot less likely, but still possible.

(1) Current incubation period estimates are based on three studies conducted on very early data with small base sizes (best info we had at the time).
(2) New analysis is currently under peer review, but is using larger datasets and has a more-realistic timeline (published, under review).

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Symptoms to Monitor & Reinfection Risk

Most common in early detection

- Fatigue
- Headache
- Muscle or body aches
- Fever or chills
- Cough
- Sore throat

- Shortness of breath or difficulty breathing
- New loss of taste or smell
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

Reinfection

Published case reports have shown that reinfection is possible, but it is still unclear how long people who have recovered from COVID-19 are protected against reinfection with SARS-CoV-2, what concentration of antibodies is needed to confer protection, and how often reinfection may occur.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html

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Testing for Infection

Diagnostic Tests (for Infection)

- **Molecular Tests**, such as RT-PCR tests, detect the virus' genetic material.

- **Antigen Tests**, detect specific proteins from the virus.
  - Positive Antigen Tests are generally accurate
  - Negative Antigen Tests may **need to be confirmed** with a molecular test
    - ➢ Less-sensitive test that needs a larger viral shed in order to detect the virus. Back-to-back tests may have different results, depending on degree of viral shed each day.

Antibody Tests (Non-Diagnostic)

- **Antibody Tests**, look for antibodies that are made by your immune system in response to a threat.
  - Antibody Tests should **not** be used to diagnose a current infection

Timing & Turn Around

All samples collected must be in a lab environment within 72 hours, regardless of collection method (especially important for at-home kits).
Some rapid, point-of-care tests can have results available within minutes, while many tests can take up to a week to receive results.
Timing of results is affected by demand, so during spikes in testing / cases, the turn around time may take longer than usual.

Which Tests are Which?

	Molecular Test	Antigen Test	Antibody Test
Speed of Test Result			
Rapid Result	✓	✓	✓
Up to a week (or so) to get results	✓		✓
Test Name / Terminology			
"Diagnostic Test"	✓	✓	
PCR or RT-PCR test	✓		
LAMP test	✓		
Nucleic Acid Amplification test (NAAT)	✓		
Serology / Serological test			✓
Typical Collection Method			
Deep Nasal Swab – Nasopharyngeal Swab	✓	✓	
Standard Nasal Swab – Nasal or Mid-Turbinate Swab	✓	✓	
Throat / Tonsil Swab – Oropharyngeal Swab	✓	✓	
Saliva / Spit	✓		
Blood Draw or Finger Prick			✓
Accuracy			
False-Positives (Positive Result, but don't really have it)	Near Zero	Near Zero	Unknown
False-Negatives (Negative Result, but have the virus)	**2% – 37%**	**Up to 50%**	Unknown

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Comorbidities

Common Risk Factors for Severe Illness
(not an exhaustive list)

- Age
- Cardiovascular Disease
- Diabetes
- Chronic Respiratory / Lung Disease
- Chronic Kidney Disease
- Prior Stroke

- Heart Conditions
- Heart Failure
- Coronary Artery Disease
- Cardiomyopathies
- Pulmonary Hypertension
- Hypertension
- Cancer

References

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- https://www.cdc.gov/coronavirus/2019-ncov/more/science-and-research.html

FDA
- Testing Basics: https://www.fda.gov/consumers/consumer-updates/coronavirus-disease-2019-testing-basics
- A Closer Look at COVID-19 Diagnostic Testing: https://www.fda.gov/health-professionals/closer-look-covid-19-diagnostic-testing

Harvard Medical School
- Which test is best for COVID-19: https://www.health.harvard.edu/blog/which-test-is-best-for-covid-19-2020081020734

Monitoring Info
- The COVID Tracking Project: https://covidtracking.com/data/
- Johns Hopkins | Coronavirus Resource Center: https://coronavirus.jhu.edu/us-map

Early Studies Estimating Incubation Period
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- Lauer SA, Grantz KH, Bi Q, et al. The Incubation Period of Coronavirus Disease 2019 (COVID-19) From Publicly Reported Confirmed Cases: Estimation and Application. *Ann Intern Med*. 2020 May 5;172(9):577–82. doi:10.7326/M20-0504external icon.

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