Patient Journey Map and Timed Study in Primary Care Clinic During COVID Pandemic

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Background

- Patient experience mainly depends on information giving, communication and relational aspects of care.[1,2]
- The multi-step process from the time the patient arrives to the building, to the provision of care and departure appears to be a major factor for patient satisfaction.[3-5]
- Delay of care not only disturbs patient satisfaction but also affects "the perceptions of the information, instructions, and treatment provided by healthcare providers.[5]"
- The COVID-19 pandemic required alterations to the flow of patient care in our ACC internal medicine outpatient clinic to maintain social distancing and ensure patient safety.[6]
- We aimed to identify the steps and delays in the new multi-step process from arrival to being roomed and ready to see a physician in an effort to improve quality of care in the outpatient setting.
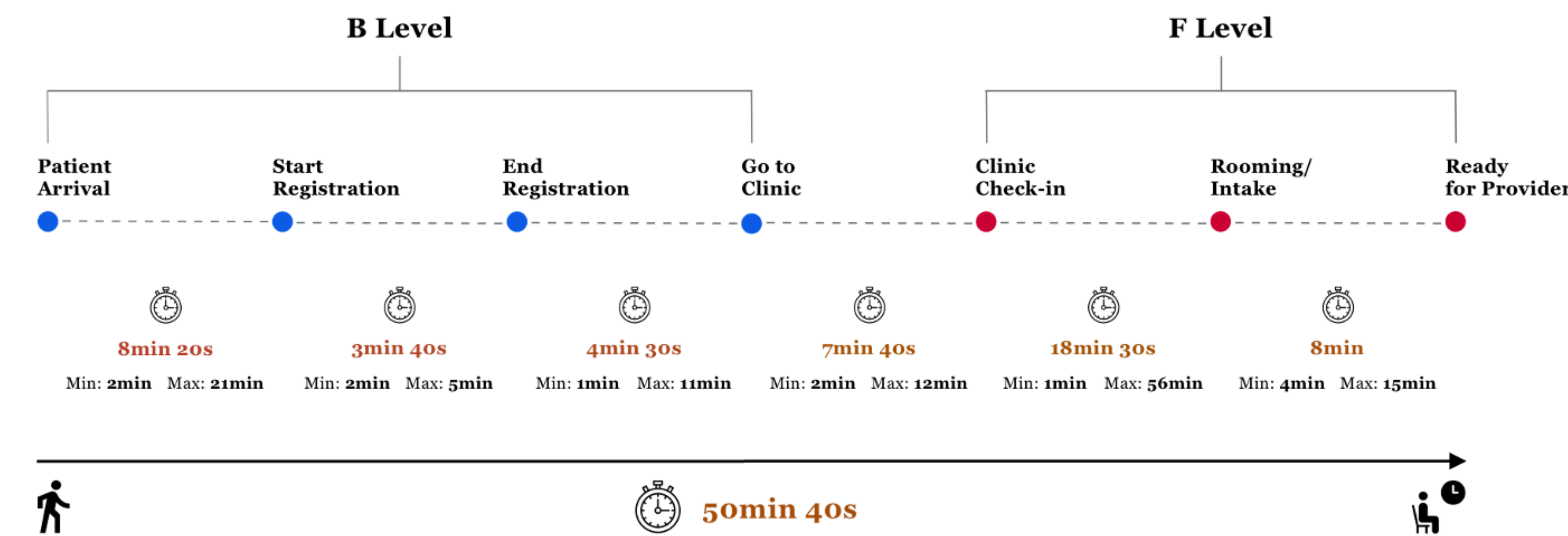
Methods

- **Study population:**
  - Consecutive patients that arrived for the afternoon ACC internal medicine resident clinic.
  - Winter of 2020 after implementation of a new registration to facilitate COVID-19 precautions.
  - There were two distinct groups of patients, due to in increase of E-health visits due to rising COVID numbers during the study.
  - English- and Spanish-speaking patients were included.
  - Patients more than 30 minutes early or late were excluded.
- **Procedure:**
  - Patients were followed from arrival until roomed and ready to be seen by a physician.
  - Time spent at each step, if COVID-19 precautions were maintained, and observations were recorded.
- **Data Analysis:**
  - Times were averaged and used to create a patient's journey map from time of arrival to being roomed and ready.
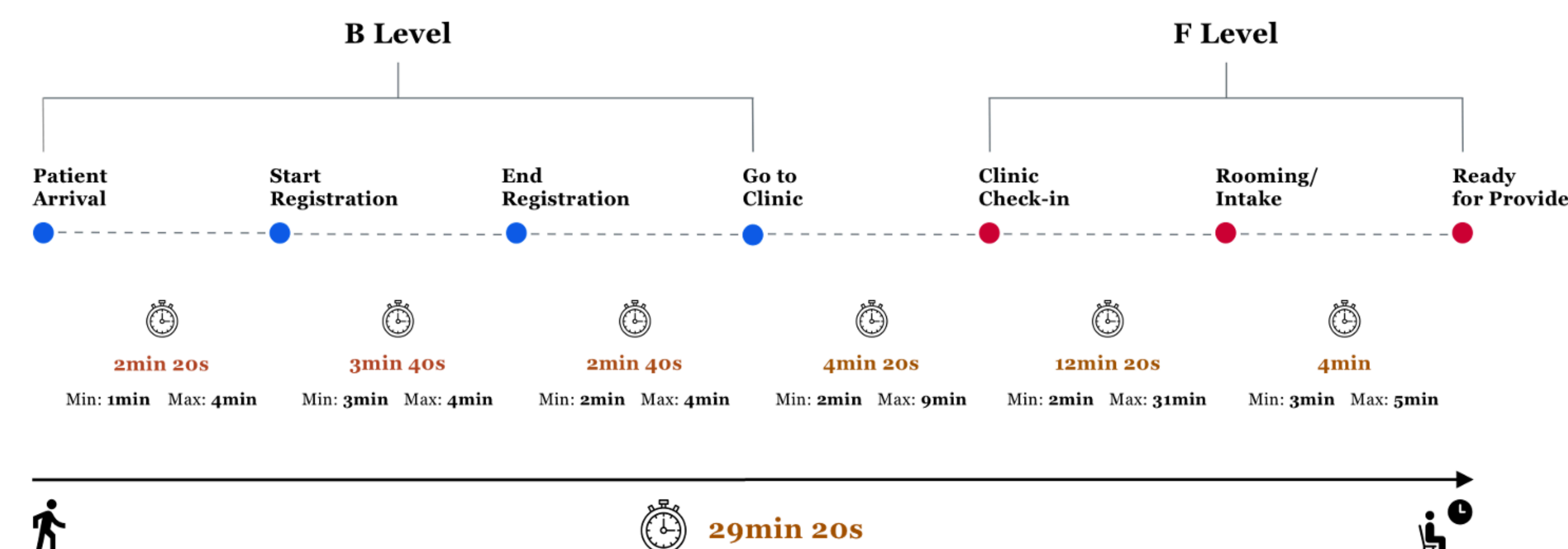
Results

Figures 1 and 2. display the patient journey from arrival to being roomed and ready for a physician. Steps in blue take place on B level where the general registration process occurs for most specialties' clinics in the ACC. Steps in red occur on F-level where completion of the registration process for the resident internal medicine clinic occur.

Figure 1. Patient Journey Map Prior to Increase in E-Health visits.

B Level				F Level		
Patient Arrival	Start Registration	End Registration	Go to Clinic	Clinic Check-in	Rooming/ Intake	Ready for Provider
8min 20s	3min 40s	4min 30s	7min 40s	18min 30s	8min	
Min: 2min Max: 21min	Min: 2min Max: 5min	Min: 1min Max: 11min	Min: 2min Max: 12min	Min: 1min Max: 56min	Min: 4min Max: 15min	

50min 40s

- Prior to increase in E-Health visits, the average total time from arrival to being roomed was 50 minutes and 40 seconds.
- The most time was spent waiting on F-level after completing the registration process but waiting to be roomed averaging 18 minutes and 30 seconds.

Figure 2. Patient Journey Map After Increase in E-Health visits.

B Level				F Level		
Patient Arrival	Start Registration	End Registration	Go to Clinic	Clinic Check-in	Rooming/ Intake	Ready for Provider
2min 20s	3min 40s	2min 40s	4min 20s	12min 20s	4min	
Min: 1min Max: 4min	Min: 3min Max: 4min	Min: 2min Max: 4min	Min: 2min Max: 9min	Min: 2min Max: 31min	Min: 3min Max: 5min	

29min 20s

- After increase in E-Health visit, average total time from arrival to being roomed was 29 minutes and 20 seconds, a reduction of 21 minutes and 20 seconds.
  - Again, the most time was spent in the F-level waiting area, an average of 12 minutes and 20 seconds.
- During both periods, covid precautions were maintained
- During both periods, the longest waits occurred when all physician rooms were occupied by patients at varies stages in the visits (being seen by physician, precepting, check out with medical technician, etc.).

Conclusion

- This journey map showed the longest wait occurred after completion of the registration process but while waiting to be roomed.
- Based on observations, this extended wait time was due to lack of available rooms.
  - This is supported when a reduction of wait time for an available rooms was reduced once the volume of in-person visits decreased in setting of transitioning to higher numbers of E-health visits.
- COVID precautions including mask wearing and social distancing were maintained.

Future Direction

- Now that several measures have been implemented, the study may be repeated for assessment of following changes:
  - Ensuring every resident is assigned two patient visit rooms.
  - New check-in and check-out forms to facilitate efficiency of patient flow before and after seeing provider to make more rooms available.
- Research into online/mobile registration for patients to limit in-person contact with clinic staff and reduce time spent in ACC building during pandemic.

References

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