Background:
• ED overcrowding and delays in admission have several important consequences, such as longer hospital stays, inability of patients to gain access to appropriate hospital beds, lost opportunities to treat patients and patients left without being seen. It is multifactorial and contributes to significant economic burden and also causes physician burnout and negatively impacts patient’s care. One contributor to suboptimal ED patient flow could be admission decision delays (defined as admission decision > 4 hours by AHS).

• According to a Canadian-based study, patients who experienced admission delay in the ED had 12.4% longer inpatient length of stay and incurred 11.0% higher inpatient cost compared to patients who were not delayed. A UK-based retrospective study concluded that delays to hospital inpatient admissions for patients in excess of 5 hours from time to arrival at the ED are associated with an increase in all-cause 30-day mortality.

• According to a Canadian-based study, patients who experienced admission delay in the ED are associated with an increase in all-cause 30-day mortality.

Aim:
• To reduce the percentage of delayed GIM ED-consult to admission decision from 42.7% to 25% in 6 months.

Method:
• A retrospective chart audit of GIM admitted patients between January 2021 and December 2021 was completed.
• Reports were built in the local IT system called Connect Care to identify patients seen by the GIM ED consultation service.
• Logistic regression was performed to identify predictive factors for delayed admission (defined as a decision to admit >4 hours) ED-consultation and to identify improvement intervention.

Data Analysis:
A total of 516 GIM ED-consultations were requested in 12 months, 473 were admitted. Of those admitted 42.7% were delayed. There were 666 direct admission. Total number of patients was 6182.

Result:
• Predictive factors (p-value <0.05) for delayed admission decision were age over 65-years; primary diagnosis of delirium, frailty, and malignancy; a LACE Readmission Score ≥74; and time of consult request between 0400-0759 and 2000-2359.
• Factors associated with admission decision time of <4 hours included time of consult request between 1200-1559; a CTAS score of 1; and primary diagnoses of COVID-19 infection and Addiction & Mental Health.

• Weakness: Only looked at time of consult to time of admission order in CC—does not consider “lay eyes” on the patient and initiation of the consult.

Act to improve:
• Following Interventions were chosen based on data analysis:

  - Communication pathway for ED to Family Medicine
direct patient to appropriate admission pathways.
  - Prioritization of seeing complicated patients to expedite disposition.
  - Improving ED flow with prompt and expedited admission will result in better outcomes and patient satisfaction.

Lessons learned:
Based on post-intervention data the reason for no improvement was inability to directly address any of the root causes of the problems that we had found during our baseline data analysis. Effective changes require collective efforts and understanding among GIM subspecialties, Family medicine, ED and hospital administration.

Post Intervention Results:
There was no obvious change/improvement found. January 2022 was the start of the Pulmonary Service and the Family Medicine Service expanding their capacity to admit some of the patients that would have otherwise been admitted to GIM. However, this intervention did not seem to decrease the number of GIM Consults from the ED, or to improve GIM Admission Decision times.

Next Steps:
• Decreased ED-consult to GIM-admission time.
• ED-consults delayed.
• Admission protocols.
• Appropriate admission pathways.
• ED flow with prompt and expedited admission will result in better outcomes and patient satisfaction.

References:
The effect of emergency department delays on 30-day mortality in Central Norway. Published in Int J Emerg Med treatment delays and cost improvements.

Contact:
Nazia Shams MD PGY5 GIM
nazia@ualberta.ca
University of Alberta

Acknowledgements
We are grateful for the support of the following members of our team: Dr. Sohail Anwar, Dr. Morales, our family medicine colleagues and ED colleagues.

Aim:
• To reduce the percentage of delayed GIM ED-consult to admission decision from 42.7% to 25% in 6 months.

Method:
• A retrospective chart audit of GIM admitted patients between January 2021 and December 2021 was completed.
• Reports were built in the local IT system called Connect Care to identify patients seen by the GIM ED consultation service.
• Logistic regression was performed to identify predictive factors for delayed admission (defined as a decision to admit >4 hours) ED-consultation and to identify improvement intervention.

Data Analysis:
A total of 516 GIM ED-consultations were requested in 12 months, 473 were admitted. Of those admitted 42.7% were delayed. There were 666 direct admission. Total number of patients was 6182.

Result:
• Predictive factors (p-value <0.05) for delayed admission decision were age over 65-years; primary diagnosis of delirium, frailty, and malignancy; a LACE Readmission Score ≥74; and time of consult request between 0400-0759 and 2000-2359.
• Factors associated with admission decision time of <4 hours included time of consult request between 1200-1559; a CTAS score of 1; and primary diagnoses of COVID-19 infection and Addiction & Mental Health.

• Weakness: Only looked at time of consult to time of admission order in CC—does not consider “lay eyes” on the patient and initiation of the consult.

Act to improve:
• Following Interventions were chosen based on data analysis:

  - Communication pathway for ED to Family Medicine
direct patient to appropriate admission pathways.
  - Prioritization of seeing complicated patients to expedite disposition.
  - Improving ED flow with prompt and expedited admission will result in better outcomes and patient satisfaction.

Lessons learned:
Based on post-intervention data the reason for no improvement was inability to directly address any of the root causes of the problems that we had found during our baseline data analysis. Effective changes require collective efforts and understanding among GIM subspecialties, Family medicine, ED and hospital administration.

Post Intervention Results:
There was no obvious change/improvement found. January 2022 was the start of the Pulmonary Service and the Family Medicine Service expanding their capacity to admit some of the patients that would have otherwise been admitted to GIM. However, this intervention did not seem to decrease the number of GIM Consults from the ED, or to improve GIM Admission Decision times.

Next Steps:
• Decreased ED-consult to GIM-admission time.
• ED-consults delayed.
• Admission protocols.
• Appropriate admission pathways.
• ED flow with prompt and expedited admission will result in better outcomes and patient satisfaction.

References:
The effect of emergency department delays on 30-day mortality in Central Norway. Published in Int J Emerg Med treatment delays and cost improvements.

Contact:
Nazia Shams MD PGY5 GIM
nazia@ualberta.ca
University of Alberta

Acknowledgements
We are grateful for the support of the following members of our team: Dr. Sohail Anwar, Dr. Morales, our family medicine colleagues and ED colleagues.