

**Improving Palliative Care Consult Volume Through an Educational Initiative with
Hospitalists**

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Executive Summary

In 2019, the Centers for Advanced Palliative Care (CAPC) reported that 12 million people in the United States were currently living with a chronic or life-limiting illness. Yet this number is expected to increase to 63 million by 2035 (Morrison & Meier, 2019). With this staggering number, palliative care will be a service that will benefit these Americans who are facing a chronic or life-limiting illness. This project aims to increase access for these patients admitted to the hospital with a chronic disease by increasing the number of palliative care consults from hospitalists. Hospitalists are primarily the attending physicians on these acute care patients and the goal of this project is to provide education geared at understanding palliative care and the benefit for the patients.

Project Implementation

Our quality improvement project was conducted at a 255-bed community-based hospital in Houston, Texas. This facility had 20 full time hospitalists on staff. In three academic sessions, our intervention provided online educational modules through CAPC. Each of these sessions offered continuing medical education (CME) credits totaling 7.5 CMEs in all. Lasting six months, each session had up to 4 online modules to complete through CAPC.

The educational courses covered three main topics: communication, advance care planning, and relief of suffering. Each hospitalist could complete these courses while at the hospital or have access to CAPC remotely. Educational topics were introduced at staff meetings along with contact information for CAPC administrators if access problems arose.

Results

The overall completion rate for the educational courses by the hospitalist was 70%. The impact on the consult volume to the palliative care team from the hospitalists increased from 56% to 68%.

Impact

The overall impact of this study showed that with palliative care education, hospitalists gained understanding of the benefits of the palliative care services and the positive effect for the patients. Increased understanding can result in more goals of care conversations, leading to a decrease in unwanted medical interventions by patients. Increased palliative care consults can also result in a higher completion rate for advance care planning documents, positively affecting value-based care.

Improving Palliative Care Consult Volume Through an Educational Initiative with Hospitalists

In 2019, the Centers for Advanced Palliative Care (CAPC) reported that 12 million people in the United States (U.S.) were currently living with a chronic or life-limiting illness. This number is expected to increase to 63 million by 2035 (Morrison & Meier, 2019). Palliative care is a subspecialty of medicine that focuses on physical, emotional, and spiritual care for patients dealing with a chronic or life-limiting illness to relieve suffering while continuing to treat the underlying disease. Despite the expected increase in the need for palliative care, many health care providers lack awareness of the indications for it and thus, many acute care patients with chronic or life-limiting illnesses have limited access to this type of care (Kerr et al., 2020). This project aimed to increase palliative care-focused education for physicians to increase their referral of hospitalized patients in need to the palliative care team.

Background

The current U.S. health care system focuses on treating chronic diseases without consideration for patient support needed to manage those diseases daily, which often results in increased emergency room utilization, increased readmission rates, and decreased quality of life (Morrison & Meier, 2019). May et al. (2018) highlighted a cost savings of \$3,200 per hospital admission for patients diagnosed with a chronic or life-limiting illness and \$4,200 for patients diagnosed with a cancer diagnosis when a palliative care consult occurs within three days of admission. These costs savings would allow health care organizations to increase the types of services offered to patients and potentially improve their quality of life.

Review of Literature

In 2018-2019, data from the CAPC Registry indicated that 48% of all consults from an acute care setting to palliative care came from hospitalists, making hospitalists' knowledge of palliative care indications vital to acute care patients (CAPC, 2020). According to the Society for Hospital Medicine in 2017, 53% of hospitalists reported concerns about a patient's understanding of their disease process and prognosis (Fail & Meier, 2018). McDarby and Carpenter (2019) conducted a qualitative study that interviewed 38 providers, both palliative and nonpalliative, at four midwestern hospitals to investigate the perceived barriers to initiating a palliative care consult in the inpatient setting. They discovered a lack of knowledge about the role of the palliative care team as one of the major barriers (McDarby & Carpenter, 2019). To decrease this knowledge gap, a recommendation was made for the provision of palliative care-focused education to providers to give them a more in-depth understanding of palliative care indications and benefits, but they did not explore this further in the study.

The addition of post-medical school short courses in advance care planning communication skills, discussing prognosis skills, chronic symptom management, and psychosocial assessment and support can help increase referrals to palliative care for patients suffering from a life-limiting illness (Meier et al., 2017). In an article by Zemplényi et al. (2020), they discussed how the use of a structured education program can increase palliative care consults. They proved it through their study with an increase of consults from 84 consults in 2013 to 465 consults in 2017 to their inpatient palliative care team at a hospital in Hungary post education implementation (Zemplényi et al., 2020). Another study provided oncologists with palliative care education focusing on communication and advance care planning and they saw an increase from 18% to 33% of patients with stage 4 cancer having a palliative care consult (Hanson et al., 2017).

Description of problem

The palliative care leadership team in our 255- bed community hospital had concerns about the lower consult volume to the palliative care team at this hospital compared to other hospital-based palliative care teams within our same health system, located in the greater Houston area. In 2019 our 255-bed community hospital, they had an average of 60 palliative care consults a month, while a hospital of a similar size and within the same health system had an average of 85 consults per month. In noting this decreased consult volume, palliative care leadership worked together with the Accountable Care Organization (ACO) team to design a plan to educate hospitalists and increase their awareness of the palliative care program.

Theoretical Framework

The theoretical framework for this quality improvement project was the Plan- Do-Study-Act (PDSA) model initially introduced in 1950 by W. Edwards Deming (Wilson & Schub, 2018). In the *Plan* phase of this project, the content that was to be included in the educational curriculum for the intervention was decided. The current palliative care leadership and ACO team were involved in the planning stage. As a collective group, we decided to offer education via online modules offered by CAPC. During the *Intervention* phase we provided access to online instruction in three different sessions with different topics to all full-time hospitalists within this community-based hospital. During the *Study* phase, we compared the baseline consult rate from the hospitalists to the palliative care team to the consult rate following the education. Based on the results, we *acted* to plan additional education to other physician specialties.

Purpose Statements and Project Aims

The overall arching goal of this project was to increase consults made by the hospitalists to the palliative care team through an initiative providing palliative care-focused education for the hospitalists. There were two specific aims of this quality improvement project. The first aim

was to increase the consult volume to the palliative care team from the hospitalists at this community-based hospital by at least 10% from baseline over the 18 months that the education was offered. Our second aim was to provide focused palliative care education to all the full-time hospitalists employed at the facility during the project with a completion rate of at least 70% completing the full training. The project director (PD) chose hospitalists as the focus of this project because they were the attending physicians on most inpatient cases and had a broader reach to patients who likely needed palliative services. The clinical question that guided the quality improvement project (QI) was: In a 255-bed community hospital can palliative care focused education to hospitalists increase the consult volume to the palliative care team from the hospitalists?

Methods

Project Design

Our quality improvement study provided an educational initiative using a before and after quantitative design to measure process outcomes. The rates that were measured were the baseline consult rate before introducing palliative care education to the hospitalists and then measured the consult rate for one month following each session. The PD completed a strengths, weaknesses, opportunities, and threats (SWOT) analysis before launching the educational platform to the hospitalists. The identified strengths were engaged leadership, a strong palliative care team, and a national organization with easy to access classes focused on palliative care and geared for hospitalists. The weaknesses identified included: (1) asking physicians to access education outside of their typically required education, (2) possible lack of buy-in by the physicians, and (3) substantial time loading physicians into CAPC to create an account. The opportunities identified were that the hospitalists received free continuing education credits to complete

courses and a possible increased knowledge in primary palliative skills. The threat identified was that providing these physicians with basic palliative care skills could deter a consult to the team and possibly lead to a lack of interest by hospitalists to learn more. Overall, the strengths, opportunities and possible benefits outweighed the negatives, and the project was undertaken by the team.

Participants and Recruitment

The quality improvement project was reviewed and approved by the health system and campus where the project was implemented. All full-time hospitalists on staff at this community-based hospital in January 2020 were included in the project. The project team worked with the ACO team to make Palliative Care education part of the hospitalists' yearly education requirements for the years 2020 and 2021. The educational requirements are part of the overall bonus structure and used to incentivize completion of all sessions. The hospitalists also received 7.5 free CME credits for completion of all classes.

Intervention

Our primary intervention for this project was to provide palliative-based education to the hospitalists to further understanding and awareness of palliative care. The educational modules, provided through CAPC concentrated on the identified population of hospitalists. As this facility is a member of CAPC, there were no extra charges for the use of the modules. The ACO team and palliative care leadership determined which courses would best fit our project to provide a high-level overview of palliative care. It was decided by the project team to roll out three different educational sessions that each included three or four modules for completion (see Appendix A for the Project Curriculum). The PD enrolled each hospitalist identified for this project into CAPC and created a secure login for each. CAPC sent each hospitalist a post-

enrollment email to inform them of their login and to create their account-specific password.

Each hospitalist was assigned the courses for completion in CAPC for ease of finding them on the website.

The first round of educational modules was appointed on January 2, 2020, and was due to be completed by June 30, 2020. The theme of this session was communication with patients and families. The courses included in this session were Delivering Serious News, Conducting a Family Meeting, Discussing Prognosis, and Clarifying Goals of Care. Our second educational session started July 1, 2020, and was completed December 31, 2020. The theme of this second session was advance care planning and the importance of completion. The courses in this session included Advanced Care Planning Conversations, Basic Advance Care Planning: Introduce and Motivate, Basic Advance Care Planning: Guide and Document, and Beyond the Conversation: Integrating Basic Advance Care Planning into Practice. Our third and final education session was introduced on January 2, 2021, and was due to be completed June 30, 2021. The theme of this educational session was the relief of suffering for three common chronic diseases: chronic obstructive pulmonary disease, congestive heart failure, and dementia. The courses included in this educational session were Dementia: Relieving Suffering for Patients and Families, Chronic Obstructive Pulmonary Disease (COPD), and Heart Failure (see Appendix B).

Data Collection

The project team collected two forms of data for this project from two different sources. Our first data set investigated the number of consults at baseline before education was offered to hospitalists. Our initial data collection of consults placed the acute palliative care team in the electronic medical record (EMR) for the month of December of 2019. We had the assistance of the quality analytics department to create a report through Enterprise Performance Systems

Incorporated (EPSi). EPSi, an analytical report system, was used to pull demographic data from the EMR of all patients who had received a palliative care consult. The targeted data was then filtered out to include all patients whose consults came from the hospitalists. The data pull process was completed after each educational session was completed, i.e., in August 2020, February 2021, and August 2021(See Appendix B).

We collected the data one full month after each session ended. The second data source that we used was to show the completion rate of the educational courses of our hospitalists. The completion log was accessed through CAPC. We logged into CAPC, with the help of the onsite CAPC administrator, to determine which courses had been completed by each hospitalist for each session and to calculate our overall completion rate across all sessions. This data was compiled in an Excel spreadsheet and can be accessed monthly or yearly from the CAPC site. Our data sets reported through EPSi included patient demographic information, date of consult, diagnosis, the reason for a consult, and the type of physician who ordered the consult. The use of the Excel format enabled the ability to filter out the data needed for this project. Data was filtered down by the type of physician who ordered the consult to focus on how many hospitalists ordered consults. As for our second data set from CAPC, it was reported out in Excel format as well. As the CAPC administrator for this project, I logged in to CAPC under the health systems account, pulled the excel spreadsheets after each educational session, and determined which hospitalists completed all the academic requirements. The spreadsheet that CAPC reports has all health system personnel that had completed any CAPC courses for any given time. The Excel spreadsheet had to be filtered down to the hospitalist's individual's name to confirm which courses were completed by each of them. By pulling this second set of data, we found the completion percentage for all the CAPC modules assigned.

Data Analysis

The PD used Microsoft Excel to collect data for the quality improvement project. A query was created by the quality analytics team that was uploaded into EPSi program. EPSi is an analytics platform that is offered by Strata that is to help healthcare systems with financial planning, analytics, and performance (Strata, 2019). Once the query was uploaded the program runs it through the electronic medical record and results were sent to the program director in excel spreadsheet form via email. The query for this quality improvement project included patient demographic data, campus of admission, date of consult, diagnosis for consult and specialty of physician that placed the consult. We used the Excel spreadsheet to filter down to all consults that were completed at the campus where the study was conducted. A second measurement tool that was collected was through CAPC and the information that was collected was used to gather the completion rate of the educational modules by hospitalists. The project director logged into CAPC and through the admin settings was able to retrieve an Excel spreadsheet with all courses that had been completed by hospitalists. This spreadsheet was then filtered down to the hospitalists that were involved in this quality improvement project. The data was pulled after completion for each session.

Results

Implementation

We found that the systems worked optimally in Microsoft Edge during implementation as issues were reported when using Internet Explorer. As we went to roll out our second and third education sessions, we found ourselves in the middle of the COVID 19 pandemic. The project director did attend hospitalist team meetings via Zoom to answer any questions or issues with completing the courses. The increased workload and demand on the hospitalists' time could have

been a possible deterrence to complete the educational modules. The project team was able to continue to remind hospitalists via email and Zoom meetings of which courses to complete and due dates. The project director sent reminders two weeks before the educational session ended to increase the completion rate amid the pandemic.

Outcomes

There were 20 hospitalists at the 255-bed community-based hospital in Houston, Texas who were involved in this QI project. Of those 20 hospitalists, eight were women, and twelve were men. Hospitalists ranged in age from 31-51 years with a mean age of 38 years. The outcome for our first aim was met with the quality improvement project as the consults from the hospitalists to the palliative care team increased by an overall 12% (See Figure 1). Our baseline data from December 2019 showed that 45 of the 81 (56%) total consults to the palliative care team came from hospitalists (See Figure 3). The top diagnosis of our patients at the time of consult was cancer (See Figure 2). Following the first educational session, 36 of the 56 total consults (68%) came from the hospital medicine team. These results meant that 68% of our consult volume came from the hospitalists. Cancer was again the top diagnosis at the time of consult. We also found that 60% or eight of the twelve hospitalists completed the educational requirements in the first session. Following the second session, 52 out of the total consult volume of 83 (63%) were from the hospital medicine team. Infection, possibly COVID 19, was the top diagnosis for this session. The completion rate for the second educational session was 75%, or 15 out of 20 hospitalists. After completion of the third session, 51 of the 75 total consults (68%) came from hospital medicine (see Figure 1). Infection remained the top diagnosis at the time of consult (See Figure 2). The completion rate for the third educational session was 75%, or 15 of 20 hospitalists completed the education. Overall, our percentage of consults from the hospitalists

to the acute palliative care team increased by 12% from 56% to 68% post completion of all educational sessions (See Figure 3). The mean completion rate across all the educational sessions was 70% for hospitalists who completed all three educational sessions.

Discussion

In this QI project, the overall goal was to increase consults to the palliative care team by the hospitalists by 10%. We increased the palliative care teams consult volume by 12% from 56% to 68% of the total consult volume coming from the hospitalists by doing an educational intervention which met the goal of the first aim for the project (see Figure 3). By providing educational modules online through CAPC, hospitalists could complete the educational sessions either remotely or at work. By doing this we were able to meet our second aim of having 70% of the 20 hospitalists complete the entire curriculum of online modules. The education required no long classes that interfered with patient care time. As the project was ongoing, we did encounter some challenges as the COVID 19 pandemic affected this local community. With a large patient increase to our hospitals, it limited the time that the hospitalist had to complete the education. There were many unknowns of COVID 19 that most of the hospitalist's time was devoted to further educating themselves of proper treatment of this new disease. Yet, even with the pandemic, most hospitalists in the project remained committed to completing the palliative education.

With the increase in consults to the palliative care team, patients dealing with a chronic or life-limiting illness were more likely to benefit from a palliative care consult. One of the significant benefits of increasing this referral rate was a greater likelihood of completing the goals of care conversation. More patients could make a sound decision regarding the goals of care and individualized advanced directives and create proper forms. The community hospital

also benefits from this increase in consults as it relates to saving resources and money. CAPC states that there is an average of \$3000 savings per patient who has a palliative care consult while in the inpatient setting and who are dealing with a chronic illness (Morrison & Meier, 2019). If you take this fact and apply it to the program in this study, the cost savings is significant. In August of 2021, there were 51 consults to the palliative care team and that could equate to \$153,000 in total savings.

Rogers et al. (2021) examined the added benefit of providing education to all providers to increase knowledge and understanding of palliative care. Using the CAPC modules for the education platform was beneficial and well received by providers (Rogers et al., 2021). Upon speaking to our providers post completion, they described the modules as “well done”, “highly informative” and “useful in their practice”. In another study by Newton and Sebbens (2020), physicians and advanced practice providers received palliative care-based education based on National Hospice and Palliative Care organization teaching modules in a 490-bed children's hospital in Dallas, Texas. They found a positive increase in referrals from 27 monthly consults to 44 monthly consults to the palliative care team post-intervention hospital wide. Our project had a similar increase in palliative care consults by providing physician education focused on palliative care.

Limitations

As we began our quality improvement study, the COVID 19 pandemic began. The pandemic affected several processes directly related to this project. As there was an influx of patients into the hospital with a large percentage of those needing ICU level of care, the health care system decided to move the hospitalists out of the ICU and let the intensivists become the attendings to all ICU patients. It decreased the total number of units that hospitalists were

rounding on and their bandwidth at the hospital. Another limitation created by the COVID 19 pandemic was that hospitalists were pulled to work at other hospitals within the health system based on surge practices. As the COVID 19 pandemic continued, we increased our check-ins with the hospitalist to remind them of the training. Another limitation was the small size of our hospitalist population. In this project, there were only 20 hospitalists identified.

Interpretation

With the promising results of this quality improvement project, we would like to further continue our study and possibly include other professions like nursing to receive palliative care education as part of their yearly competencies. This additional education would help increase the understanding of what palliative care is, how it can benefit patients with chronic illnesses and help reinforce the need for palliative care referrals. Another avenue to explore is possibly making palliative care education part of the onboarding curriculum for all hospitalists joining this health system. As discussed previously in this report, the COVID 19 pandemic influenced this project. Yet, offering these educational sessions will only continue to increase the number of palliative care consults. This will not only benefit the patients who are dealing with a chronic or life-limiting illness, but it will also decrease the overutilization of healthcare resources by saving an average of \$3000 per palliative care consult.

Conclusions and Implications

Overall, our quality improvement project increased the consult volume to the palliative care team by 12% and allowed 70% of our hospitalist to complete palliative care education. By providing palliative care-focused education to providers, we raised awareness and understanding of palliative care skills. Providing education through CAPC can be cost-effective to increase the overall knowledge of palliative care in any institution. CAPC offers courses for physicians and

other providers such as nurses, social workers, case managers, and chaplains. Providing other professions that deal with patients diagnosed with a chronic or life-limiting illness will increase the overall knowledge base of the healthcare facility about palliative care. With an increase in palliative care team utilization, the facility could help in decreasing 30-day readmissions and contribute to a shorter length of stay. Research is needed to directly address providing this education to a larger group of physicians to determine if these findings could apply to a larger population of health care provider and systems. Our health system is currently exploring the addition of palliative care education to all new onboarding hospitalists to ensure understanding and availability of this valuable resource.

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Appendix A

CAPC Curriculum used for Educational Sessions

Session One

1. Advance Care Planning Conversations
2. Conducting a Family Meeting
3. Clarifying Goals of Care
4. Discussing Prognosis

Session Two

1. Basic Advance Care Planning (ACP)
2. Initiate and Motivate Advance Care Planning
3. Advance Care Planning: Guide and Document
4. Beyond the Conversation: Basic ACP into Practice

Session Three

1. Heart Failure
2. Chronic Obstructive Pulmonary Disease (COPD)
3. Dementia: Relieving Suffering for Patients and Families

Appendix B

Timeline for Project



Figure One

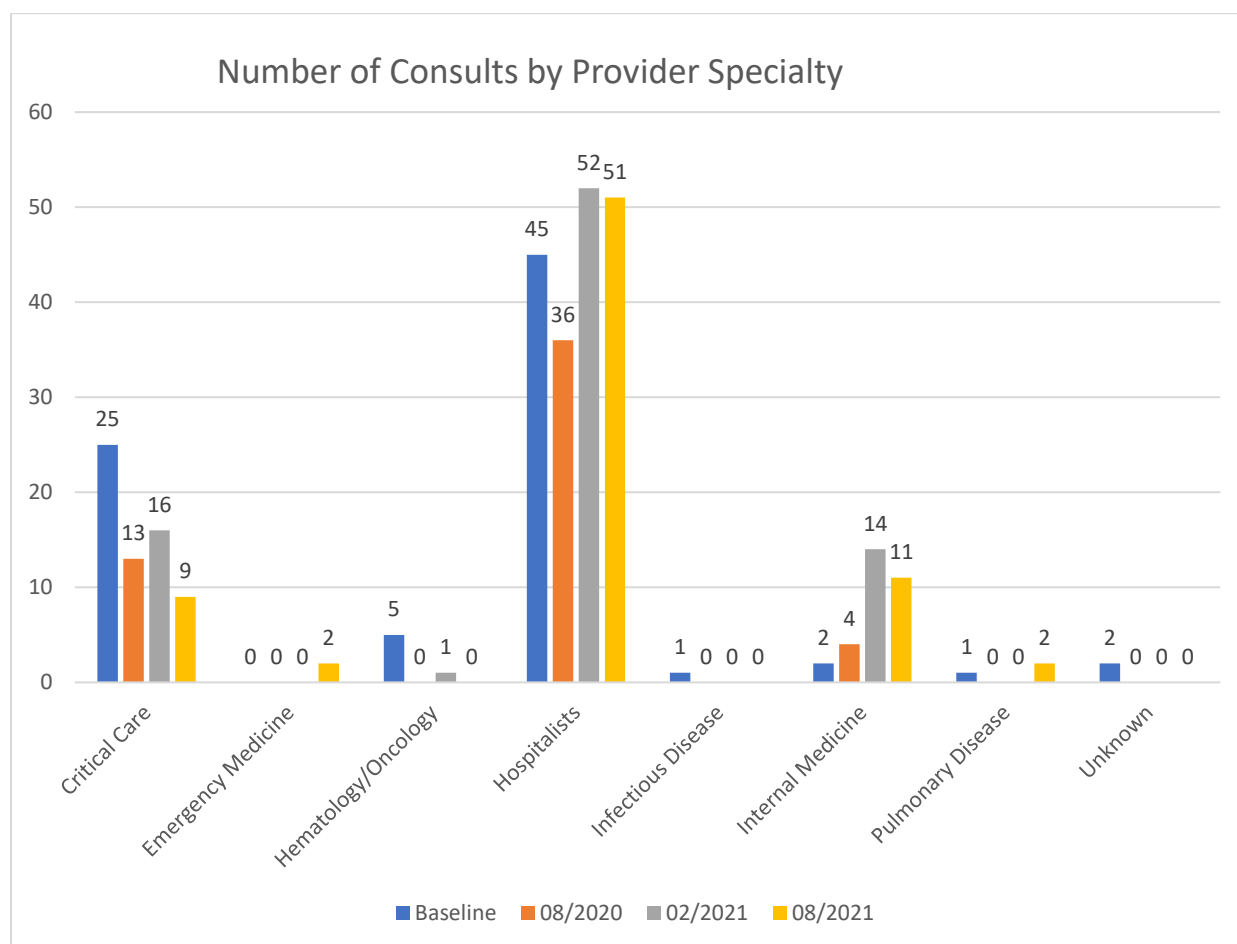
Number of Consults by Provider Specialty

Figure Two

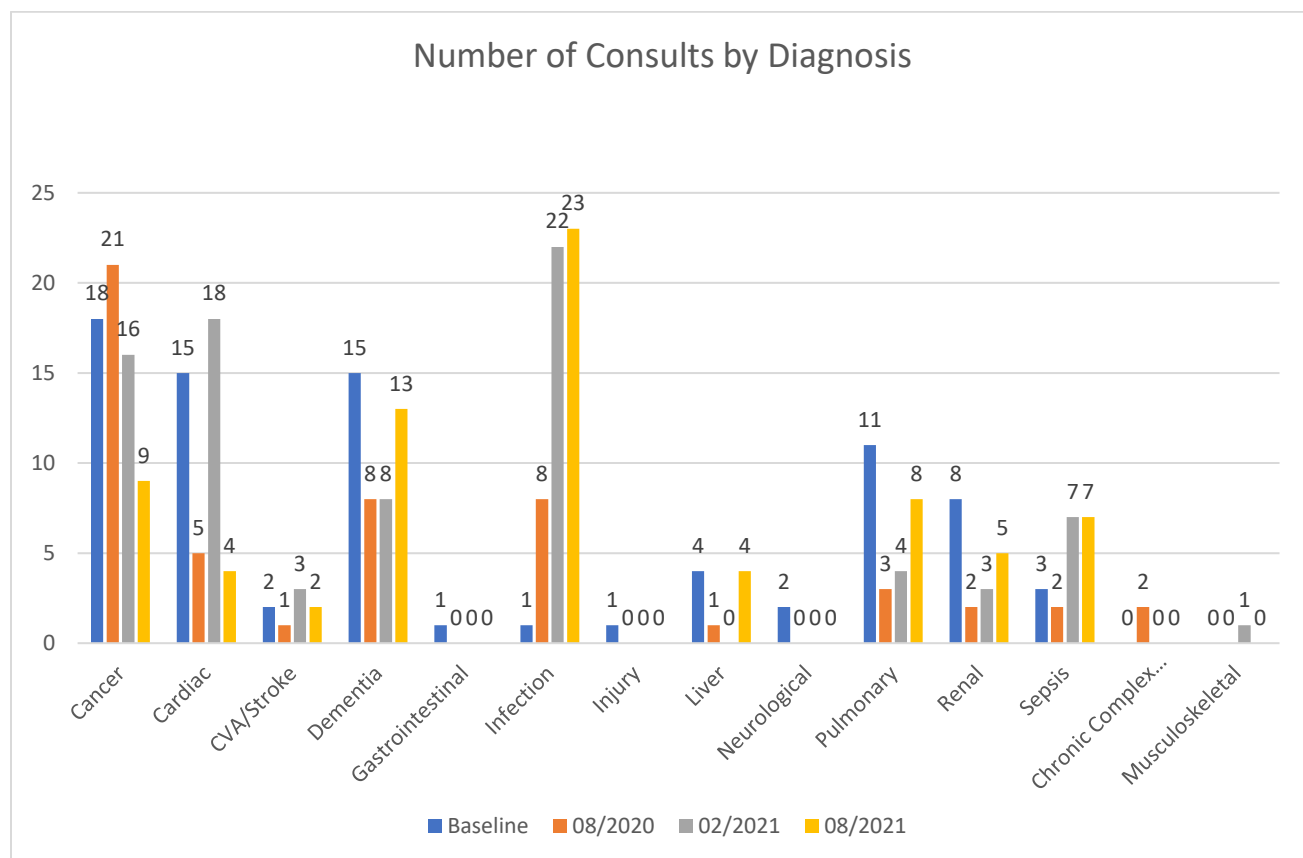
Number of Consults by Diagnosis

Figure Three

Overall Consult Volume