

Executive Summary: Road Map for Multidisciplinary Care Clinics (WLA Team: Cor Prudentis)

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Introduction

Multidisciplinary care brings cognitive and procedural expertise in different areas of care to patients with complex medical problems. Outpatient multidisciplinary clinics (MDCs) strive to centralize the services provided by experts in both space and time. In contrast to a traditional “serial scheduling” model, MDCs seek to reduce patients’ trips to clinics, shorten time for clinical decision-making, and promote collaborative decision-making. MDCs may also enhance multi-disciplinary training, improve communication, and facilitate transformative research across the clinical and translational spectrum.

MDCs have evolved over the last 40 years and are endorsed by many professional societies, expert panels, and advocacy groups. However, obstacles to successful implementation and maintenance of MDCs remain. In addition to requiring resources like equipment and space, MDCs present challenges in important domains like scheduling and funding. For example, billing and documentation may not reflect the added value of an MDC, and “value” may be perceived differently by patients, insurers, healthcare providers and hospital systems. As a leader in innovative care, Emory Healthcare has established multiple MDCs in recent years. The Cor Prudentis (CP) team sought to understand these efforts’ successes and challenges to inform development of future MDCs.

Methods

We conducted semi-structured interviews with representatives from 7 MDC programs. Programs were selected to represent a wide range of clinical conditions and specialties. For example, some were focused on longitudinal care for chronic conditions, while others were more episodic. Some focused on coordination of medical care, while others were designed around surgical procedures or other discrete interventions or diagnostic modalities. At least one person was interviewed from each program; selected informants represented clinical and administrative leadership of the program.

Interviews were conducted using a semi-structured guide developed by the CP team. The content of the guide was informed by a literature review and conversations with experts, including WLA mentors. The guide consisted of open-ended questions in a series of core domains, each of which contained prompts for interactive probes to gain further insights and to elucidate reasons for informants’ responses. The guide contained brief questions about the history of the MDC and focused on the following major domains: reasons for establishing MDC; perceived successes and challenges; scheduling and administrative support; physical space; billing and reimbursement; approach to collaborative decision-making; and integration of research and assessment of quality/outcomes.

Interviews were conducted in-person or virtually and recorded where possible. Each team member described key findings in major domains, with a focus on successes and barriers in each. Findings were discussed as a group, and over-arching themes were synthesized into key recommendations.

Summary of Findings- Successes and Challenges

Memory Care- Emory’s Integrated Memory Care Clinic is an APP-led Personal Medical Home based at Executive Park. Established with a philanthropic gift, the Memory Clinic benefits from patient/family donations and bills for Chronic Care Management (CCM) services.

Core processes include a daily morning huddle, which allows coordination of different elements of the patient's visit. This requires flexibility in clinician schedules, which may be interpreted as "inefficient" in traditional models. Maintaining sustainable billing is a challenge, but ongoing work has provided insight into how to evolve billing practices. Some highlights of the clinic include academic productivity, 24/7 provider call to help reduce hospital admissions, high caregiver satisfaction, and improved outcomes (including reduction in total symptom severity and reduction in caregiver anxiety).

Prostate Cancer MDC Clinic- The Prostate Cancer Multidisciplinary Clinic at Saint Joseph's Hospital was initiated with philanthropic donations from a former patient and was intended to optimize treatment of prostate cancer patients in Emory Healthcare (EHC). Standardized access to care for these patients has been shown to improve outcomes and even overcome disparities.

Patients have appreciated the efficiency of seeing multiple providers in a single visit to receive information on multiple therapeutic options, to minimize travel, and to expedite workup. Patients also benefit from improved care navigation. In this MDC, the navigator facilitates patient selection, orchestrates flow through the MDC, and coordinates follow up. Telemedicine has not been specifically incorporated within the MDC, but it is used to allow clinicians to maintain their traditional schedule when not seeing MDC patients.

Notable opportunities identified for improvement included more efficient pre-visit record acquisition, dedicated Patient Care Coordinators/schedulers to ensure subsequent care and conduct of dedicated research on the MDC process. While clinical trials are available to patients, robust data on quality, quality of life, and provider and patient satisfaction within the MDC would drive enhancements.

Veterans Program- The Emory Healthcare Veterans Program (EHVP) is a hospital-based clinic at Executive Park based on a large grant from the Wounded Warrior Project® that offers multidisciplinary care at no cost to veterans.

After screening, veterans are scheduled for a coordinated two-week intensive therapy visit in a core care track (PTSD, substance abuse, etc.). Insurance is billed primarily, but travel, hotel, activities, and uncovered elements of care are provided through the grant. EVHP is academically productive and has been a platform for extramural funding. The EHVP has demonstrated reduction in PTSD, depression and neurologic symptoms using this multidisciplinary format. A primary challenge is that more veterans need care than can be accommodated. Additionally, staff include both Emory University and Emory Healthcare employees; dichotomous pay structures, leave policies and incentives are complex.

Peripheral Nerve Clinic- This is a coordinated program between neurology and neurosurgery. The major success perceived by informants is improved care. As the lead NP put it, "it just makes sense." Patients are seen by multiple clinicians, receive electrophysiologic studies, and leave with a care plan in one visit. This is particularly valuable for patients requiring time-sensitive surgical management, as sequential scheduling, and planning- the norm prior to this MDC clinic- can introduce substantial delays. Additionally, there is high patient satisfaction, although it is a long day of appointments.

Primary challenges and barriers relate to scheduling. Because this clinic has limited capacity, there is a significant pre-clinic vetting performed by the lead NP, who serves as clinic navigator. In addition, the switch to Epic has increased scheduling strain due to an absence of an MDC scheduling option. The navigator often has to hide patient slots and schedule appointments manually to prevent other patients from scheduling slots on those days. Finally, the clinic is located in the neurology department due to the need for EMG studies; this causes some inefficiency due to surgeon "downtime."

Structural Heart and Valve Center- This MDC was mandated as early clinical trials of transcatheter valve replacement required a “heart team” involving cardiac surgeons and interventional cardiologists. This was eventually required for CMS coverage for percutaneous valve procedures. This center incorporates cardiac surgeons, interventional cardiologists, and cardiac imaging specialists, in addition to APPs, nurse navigators, and coordinators. After pre-visit screening by coordinators, referred patients are evaluated jointly by surgery and interventional cardiology and complete needed imaging the same day. Patients are discussed in mini or full team meetings (based on complexity), and a plan is developed. A navigator follows the patient post-procedure.

The team reports notable successes. Joint evaluation and same-day imaging have facilitated rapid and effective care decisions. Closely related, this process maximizes efficiency for patients and families, reducing visits. The MDC has facilitated collaboration by pairing physicians so that they frequently work together to see patients. Research is also integrated into the MDC on several levels. There are multiple active trials; the clinic maintains a binder to help staff identify trials for which patients may be eligible and clusters trial patients on specific days. There is also mandatory entry of all patients into national registries; this is valuable for internal feedback and quality improvement.

Several challenges were highlighted. The most significant challenge is financial. Physicians bill and are reimbursed for seeing patients jointly, but care coordination and attendance at meetings, which are essential for MDC, are time-consuming and not reimbursed. An additional challenge can be protection of and availability of key resources. Imaging experts, for example, are limited and are often “pulled away” to other procedures. The center has the advantage of access to registry data to examine outcomes, but there can be substantial delays in availability, making timely assessments difficult.

Chronic Cough Clinic- Patients affected by chronic cough have historically struggled to navigate between specialists and often experienced years of delay in treatment. In this MDC, patients are seen in a collaborative, coordinated manner with a customized telemedicine work up. This care path has helped to guide patients toward more efficient care and better outcomes and has knitted together Emory’s family of specialists across departments. This model has facilitated clinical trial readiness and advanced research, while also enhancing trainees’ education. Clinicians report satisfaction with the ability to provide care that is efficient and with the process of bringing together researchers from Georgia Tech and Emory who would otherwise not interact academically.

This MDC is in its infancy. Two early challenges relate to patient navigation and billing. Patients often experience 5-6 telemedicine charges before the procedural work up begins separately within each specialty, and monitoring is needed to follow payor reimbursement for these stacked visits. Related, patients often leave the MDC with orders for multiple testing that may not be expedited and must be coordinated by siloed administrative teams. This fails to capitalize on coordinated aspects of care. Finally, coordinated, conferenced care at the outset does not always persist.

Breast Clinic- The Multidisciplinary Clinic at Grady’s Avon Comprehensive Breast Health Center was established in 2003. The program is a comprehensive, multidisciplinary breast program that provides a full spectrum of clinical and support services, including screening, diagnosis, treatment, counseling, and research.

The major advantage noted by our physician respondent is improved care and “easy access” for patients (and clinicians). The efficiency of this model allows patients to get a workup, see multiple clinicians, and develop a treatment plan in one day for critical cases. All team members are strategically housed on two floors in the cancer center, and the team includes all key staff needed to provide breast cancer patients

with timely care plans and treatments. The team includes genetics counselors, financial counselors, surgical oncologists, medical oncologists, radiation oncologists, radiologists, and Obstetrician-Gynecologists, and provides comprehensive breast and cervical screening. Social workers facilitate patients' flow through MDC by managing schedules and follow up appointments. The program also holds weekly tumor board meetings that provide collaborative decision making and is actively involved in clinical trials and research.

The primary reported challenge is related to space. Multiple teams are involved in providing care for these patients, and it is challenging to provide encounter and equipment space for all teams.

Recommendations

Patients with complex disease(s) may benefit from a multidisciplinary clinic that centralizes clinicians and other resources needed for disease management. Each MDC will have unique needs and should be designed around the needs of the specific population. For example, some MDCs are "cure-focused" or oriented around a specific procedure, while others coordinate care for patients with diseases that require chronic management. Priorities, processes, staffing, design, and goals are highly contextual and will necessarily differ across MDCs; however, the CP team has developed the following over-arching recommendations based on our assessment of this diverse set of MDCs within EHC.

When considering the financial viability of an MDC, involve those with revenue cycle expertise early in the process. Philanthropic support, including donations from the MDC's patients and families, can pay for elements of care that are value-added to the patient, but difficult to fund by traditional billing methods. MDCs requires flexibility in scheduling, in a way that can seem "inefficient" when compared to traditional clinic models. Ultimately, MDCs shift the burden of inefficient time from the patient to the healthcare staff and physicians, so MDCs should be prepared to tolerate downtime, especially while honing definable processes to improve efficiency. Since scheduling and care coordination are critical to the functioning of an MDC, funding for a dedicated clinician-navigator (such as a nurse or advanced practice provider with expertise in the disease process). This clinician-navigator can screen patients for clinic suitability to avoid misuse of highly coordinated clinic time and can ensure efficient record procurement prior to the patient's MDC visit. A developing clinic should work with the Epic team to design MDC modules specific to each group to further optimize scheduling (including follow-up visits), create efficient documentation templates and promote adherence to pre-defined clinical pathways.

MDCs should incorporate data collection for research purposes and should also use appropriate outcome and patient satisfaction data to demonstrate effectiveness and drive process improvement. In addition to providing many research opportunities, an MDC is an ideal setting for training providers from multiple specialties. The academic worth of the MDC will be enhanced if faculty can use the MDC as a platform for grant funding, which can further strengthen an MDC's reputation as a care destination. To properly optimize Emory's tripartite mission of research, patient care and education, an MDC should carefully plan the space needs for patients, staff, and trainees. While MDCs need space for clinicians to complete "heads down" work, shared collaborative space can foster academic creativity, create impromptu educational opportunities, and enhance a sense of team unity. Teamwork is required for a well-functioning MDC, but it is not intuitive, so it requires training and guidance.

Table 1. Multidisciplinary Clinic Interview Summaries

	Benefits	Challenges	Format	Scheduling	Telemedicine	Financials	Research	Outcomes	Compensation	
Memory Clinic	<ul style="list-style-type: none"> Personal Medical Home Providers on call to reduce unnecessary hospital admissions Extremely satisfied caregivers Gets the patients what they need 	<ul style="list-style-type: none"> Looking for more sustainable billing Doesn't fit traditional care model Still doesn't have every element desired (ex. Elder Law Act) Scheduling Time/effort Communications Need for navigation, access and record collections 	<ul style="list-style-type: none"> NP led outpatient clinic at EP12, but also going into local memory care facilities Pts screened for clinic eligibility Huddle in am to coordinate visit 1 patient per slot and time. MDCs go in 2 at a time. Occasionally a 2nd patient is done. Switch on 2nd go rounds. Navigator closes visit. 2 weeks intensive outpatient therapy Also have traditional "serial scheduling" clinic with expanded services (acupuncture, sleep clinic) time off, etc. Patients are seen by at least 2 providers per visit as needed SW and pt navigators help to manage patient flow and keep patients informed Neurosurgery is visitor in neurology space (location of EMGs key) so difficulty finding supplies and scheduling other patients 	<ul style="list-style-type: none"> Attempts made to coordinate, but not "baked in" so providers have to be flexible Flexible sometimes equated with "inefficient" 1 patient per slot and time. Follow up scheduling done by non-dedicated PCs and often is challenging. Navigator often does help. Well-coordinated for the 2 week stay Different "tracks" (substance abuse, PTSD, etc) Scheduling (like this requires flexibility) SW and pt navigators help to manage patient flow and keep patients informed Epic lacks MDC scheduling option so falls on clinic coordinator's shoulders Coordinator works to identify necessary timing for visit Outpatient evaluation jointly with surgeon and interventionist cardiologist. Surgeons and cardiologists work in pairs. CT the same day. Specified days for trial patients Navigator coordinates annual follow-up 	<ul style="list-style-type: none"> Lived more during COVID Care partner establishments telemed same room Better tolerated by dementia patients than coming into clinic Telemedicine is used for follow up of other non-MDC patients, such that practitioners do not have to give up as many standard slots Telemed for follow up since patients come from all over the country, but try to get therapists in their area Lots of other tech (stairle booth, virtual reality exposure therapy, etc.) Telemedicine is used by some providers in the clinic; was used more during the peak of covid Not used due to need for physical exam 	<ul style="list-style-type: none"> Heavily philanthropy based Billing done by Chronic Care Management Billed separately per provider service as they are separate disciplines Funded by \$50 million grant from Wounded Warrior Project Bill traditional insurance first Qualifies for hospital-based clinic billing No concerns noted; billed separately as providers are from different disciplines None 	<ul style="list-style-type: none"> Yes, with publications and grants Research not integrated, but trials available to patient. Lots of research Has been a platform for faculty to get grants No surveys specifically for MDCs, but states that patients generally satisfied with the access to the care and the coordinated effort that MDCs provide Participate in research and clinical trials None 	<ul style="list-style-type: none"> Reduction in total symptom severity Reduction in caregiver anxiety Not assessed in qualitative fashion Reduction in PTSD, depression and neurologic symptoms No surveys specifically for MDCs, but states that patients generally satisfied with the access to the care and the coordinated effort that MDCs provide Improved surgery scheduling time (no data) Integrated from the beginning, so not substantial comparisons. Strong perception that care is better for patients. Navigators help keep patients feeling plugged in. Monthly QJ meeting reviews registry data. Can be a struggle to get real time data. No routine patient-centered outcome assessments 	<ul style="list-style-type: none"> Standard EHC pay scale Not competing for WRVUs Model for compensation would need to be followed All salaried (Psych Dept Comp Plan) so work for common goals Trying to figure out ways to incentivize more productive behavior Physicians all salaried, so no compensation challenges noted Each clinician bills and extra patients scheduled to fill time void Time necessary for meetings and coordination of care by physicians is not compensated but has an opportunity cost in an RVU driven payment model. Patient is billed many telemed visits Productivity and comp models do not fit well – nor is there a way to see patients at steady clip – which can lead to lukewarm participation and coverage 	
Prostate MDC	<ul style="list-style-type: none"> Patients are able to receive insight from multiple disciplines at once Less travel More rapid workup 	<ul style="list-style-type: none"> Scheduling Time/effort Communications Need for navigation, access and record collections 	<ul style="list-style-type: none"> 1 patient per slot and time. MDCs go in 2 at a time. Occasionally a 2nd patient is done. Switch on 2nd go rounds. Navigator closes visit. 	<ul style="list-style-type: none"> 1 patient per slot and time. Follow up scheduling done by non-dedicated PCs and often is challenging. Navigator often does help. 	<ul style="list-style-type: none"> Telemedicine is used for follow up of other non-MDC patients, such that practitioners do not have to give up as many standard slots 	<ul style="list-style-type: none"> Billed separately per provider service as they are separate disciplines 	<ul style="list-style-type: none"> Research not integrated, but trials available to patient. 	<ul style="list-style-type: none"> Not assessed in qualitative fashion 	<ul style="list-style-type: none"> Model for compensation would need to be followed 	
Veterans' Clinic	<ul style="list-style-type: none"> Extremely satisfied patients Travel, hotel, activities all funded through grant Would take you 8 hours on the phone to make 3 clinic appointments in the same day at Emory Increased patient and care team satisfaction Better care coordination/ access because all key stakeholders are available in clinic 	<ul style="list-style-type: none"> Higher volume of patients than can be accommodated Both EU and EHC dichotomous pay structure, time off, etc. Space is the greatest challenge-not enough rooms for all of the providers/staff, supplies, equipment, etc. Neurosurgery is visitor in neurology space (location of EMGs key) so difficulty finding supplies and scheduling other patients 	<ul style="list-style-type: none"> 2 weeks intensive outpatient therapy Also have traditional "serial scheduling" clinic with expanded services (acupuncture, sleep clinic) time off, etc. Patients are seen by at least 2 providers per visit as needed SW and pt navigators help to manage patient flow and keep patients informed Neurosurgery is visitor in neurology space (location of EMGs key) so difficulty finding supplies and scheduling other patients 	<ul style="list-style-type: none"> Well-coordinated for the 2 week stay Different "tracks" (substance abuse, PTSD, etc) Scheduling (like this requires flexibility) SW and pt navigators help to manage patient flow and keep patients informed Epic lacks MDC scheduling option so falls on clinic coordinator's shoulders Coordinator works to identify necessary timing for visit Outpatient evaluation jointly with surgeon and interventionist cardiologist. Surgeons and cardiologists work in pairs. CT the same day. Specified days for trial patients Navigator coordinates annual follow-up 	<ul style="list-style-type: none"> Telemed for follow up since patients come from all over the country, but try to get therapists in their area Lots of other tech (stairle booth, virtual reality exposure therapy, etc.) Telemedicine is used by some providers in the clinic; was used more during the peak of covid Not used due to need for physical exam 	<ul style="list-style-type: none"> Funded by \$50 million grant from Wounded Warrior Project Bill traditional insurance first Qualifies for hospital-based clinic billing No concerns noted; billed separately as providers are from different disciplines None 	<ul style="list-style-type: none"> Lots of research Has been a platform for faculty to get grants No surveys specifically for MDCs, but states that patients generally satisfied with the access to the care and the coordinated effort that MDCs provide Participate in research and clinical trials None 	<ul style="list-style-type: none"> Reduction in PTSD, depression and neurologic symptoms No surveys specifically for MDCs, but states that patients generally satisfied with the access to the care and the coordinated effort that MDCs provide Improved surgery scheduling time (no data) Integrated from the beginning, so not substantial comparisons. Strong perception that care is better for patients. Navigators help keep patients feeling plugged in. Monthly QJ meeting reviews registry data. Can be a struggle to get real time data. No routine patient-centered outcome assessments 	<ul style="list-style-type: none"> All salaried (Psych Dept Comp Plan) so work for common goals Trying to figure out ways to incentivize more productive behavior Physicians all salaried, so no compensation challenges noted Each clinician bills and extra patients scheduled to fill time void Time necessary for meetings and coordination of care by physicians is not compensated but has an opportunity cost in an RVU driven payment model. Patient is billed many telemed visits Productivity and comp models do not fit well – nor is there a way to see patients at steady clip – which can lead to lukewarm participation and coverage 	
Breast Clinic	<ul style="list-style-type: none"> Increased patient and care team satisfaction Better care coordination/ access because all key stakeholders are available in clinic 	<ul style="list-style-type: none"> Space is the greatest challenge-not enough rooms for all of the providers/staff, supplies, equipment, etc. Neurosurgery is visitor in neurology space (location of EMGs key) so difficulty finding supplies and scheduling other patients 	<ul style="list-style-type: none"> Patients are seen by at least 2 providers per visit as needed SW and pt navigators help to manage patient flow and keep patients informed Neurosurgery is visitor in neurology space (location of EMGs key) so difficulty finding supplies and scheduling other patients 	<ul style="list-style-type: none"> SW and pt navigators help to manage patient flow and keep patients informed Epic lacks MDC scheduling option so falls on clinic coordinator's shoulders Coordinator works to identify necessary timing for visit Outpatient evaluation jointly with surgeon and interventionist cardiologist. Surgeons and cardiologists work in pairs. CT the same day. Specified days for trial patients Navigator coordinates annual follow-up 	<ul style="list-style-type: none"> Telemedicine is used by some providers in the clinic; was used more during the peak of covid Not used due to need for physical exam 	<ul style="list-style-type: none"> None-neurosurgery uses down time for postop and other general fl. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Improved surgery scheduling time (no data) Integrated from the beginning, so not substantial comparisons. Strong perception that care is better for patients. Navigators help keep patients feeling plugged in. Monthly QJ meeting reviews registry data. Can be a struggle to get real time data. No routine patient-centered outcome assessments 	<ul style="list-style-type: none"> Physicians all salaried, so no compensation challenges noted Each clinician bills and extra patients scheduled to fill time void Time necessary for meetings and coordination of care by physicians is not compensated but has an opportunity cost in an RVU driven payment model. Patient is billed many telemed visits Productivity and comp models do not fit well – nor is there a way to see patients at steady clip – which can lead to lukewarm participation and coverage 	
Peripheral Nerve	<ul style="list-style-type: none"> Able to get patients a care plan or surgery schedule in one visit; often, the surgery is time sensitive Makes Sense 	<ul style="list-style-type: none"> Neurosurgery is visitor in neurology space (location of EMGs key) so difficulty finding supplies and scheduling other patients 	<ul style="list-style-type: none"> Long appt slots where patients get seen by both docs, EMGs, care conf, and plan Surgeons and interventional cardiologists in same clinic. Mini heart team daily and larger weekly meeting (for complex cases) Value clinic coordinators (nurse) talk with patient pre-visit to identify needs, address timing. Navigator to follow post-procedure 	<ul style="list-style-type: none"> Epic lacks MDC scheduling option so falls on clinic coordinator's shoulders Coordinator works to identify necessary timing for visit Outpatient evaluation jointly with surgeon and interventionist cardiologist. Surgeons and cardiologists work in pairs. CT the same day. Specified days for trial patients Navigator coordinates annual follow-up 	<ul style="list-style-type: none"> Not used due to need for physical exam 	<ul style="list-style-type: none"> None-neurosurgery uses down time for postop and other general fl. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Improved surgery scheduling time (no data) Integrated from the beginning, so not substantial comparisons. Strong perception that care is better for patients. Navigators help keep patients feeling plugged in. Monthly QJ meeting reviews registry data. Can be a struggle to get real time data. No routine patient-centered outcome assessments 	<ul style="list-style-type: none"> Physicians all salaried, so no compensation challenges noted Each clinician bills and extra patients scheduled to fill time void Time necessary for meetings and coordination of care by physicians is not compensated but has an opportunity cost in an RVU driven payment model. Patient is billed many telemed visits Productivity and comp models do not fit well – nor is there a way to see patients at steady clip – which can lead to lukewarm participation and coverage 	
Structural Heart and Valve Center	<ul style="list-style-type: none"> Better care through coordination between specialties Evaluation and care plan with a single visit Patient/family satisfaction and convenience Meets guidelines and coverage requirements 	<ul style="list-style-type: none"> Monetary- lack of payment for time in meetings/conference. Evaluation expertise can get iphoned off (poaching of procedural expertise). Need to incorporate additional specialists as the range of procedures grows. 	<ul style="list-style-type: none"> Surgeons and interventional cardiologists in same clinic. Mini heart team daily and larger weekly meeting (for complex cases) Value clinic coordinators (nurse) talk with patient pre-visit to identify needs, address timing. Navigator to follow post-procedure 	<ul style="list-style-type: none"> Coordinator works to identify necessary timing for visit Outpatient evaluation jointly with surgeon and interventionist cardiologist. Surgeons and cardiologists work in pairs. CT the same day. Specified days for trial patients Navigator coordinates annual follow-up 	<ul style="list-style-type: none"> Not a part of the evaluation in most cases. Can at times be helpful in follow-up but this typically involves imaging so rarely appropriate 	<ul style="list-style-type: none"> Both surgeon and interventional cardiologist see patient simultaneously and both doctors are able to bill. 	<ul style="list-style-type: none"> Set day for trial patients. Closely coordinated. Mandated registry for percutaneous valve procedures, so there is standardized data collection. Significant clinical trial involvement/presence with binders providing entry criteria, etc. Available. Registry data help for QJ but often lag. 	<ul style="list-style-type: none"> Integrated from the beginning, so not substantial comparisons. Strong perception that care is better for patients. Navigators help keep patients feeling plugged in. Monthly QJ meeting reviews registry data. Can be a struggle to get real time data. No routine patient-centered outcome assessments 	<ul style="list-style-type: none"> Time necessary for meetings and coordination of care by physicians is not compensated but has an opportunity cost in an RVU driven payment model. Patient is billed many telemed visits Productivity and comp models do not fit well – nor is there a way to see patients at steady clip – which can lead to lukewarm participation and coverage 	
Chronic Cough	<ul style="list-style-type: none"> Coordinated, expedited entry for condition that can take multiple providers to understand Reduces time to treat Patient-centered efficiency (telemed with 3-4 providers) colleague collaboration 	<ul style="list-style-type: none"> Organizing and the logistics involved with making MDC work Measuring outcomes and satisfaction/data Getting Routine Buy in from all disciplines showing up 	<ul style="list-style-type: none"> Telemed entry, w PA intro'ing MDC & screening Telemed with Laryngologist, Speech Pathologist, Pulm, GI, Allergist, Environmental Scientist Follow up procedures with indiv specialties 	<ul style="list-style-type: none"> PA serves as navigator, LPN works the break out rooms during the clinic and PCs from each area follow up with after visit instructions. Unclear how MDC moves beyond first visit. 	<ul style="list-style-type: none"> Primary path for seeing patient Because procedures are needed, may delay care but is gateway for more intentional care path IT challenges still exist, very labor intensive 	<ul style="list-style-type: none"> Patient ends up with sometimes 5-6 telemed visits charged before in person care starts – can bill non F2E time Opportunity cost is steep – they see at most 5 patients (1 afternoon per month) 	<ul style="list-style-type: none"> Research not integrated, but trials available to patient. 	<ul style="list-style-type: none"> Not assessed in qualitative fashion 	<ul style="list-style-type: none"> Streamlines referrals for a dx and population that bogged down clinic and no discipline took ownership Historically took years to resolve on the patient end Overlapping treatment wins coverage 	<ul style="list-style-type: none"> Patient is billed many telemed visits Productivity and comp models do not fit well – nor is there a way to see patients at steady clip – which can lead to lukewarm participation and coverage