**The ACT Model**:

The model comprises of eight interventions rooted in three foundational domains.

1. Enhancing interprofessional collaboration (IPC).
2. Enabling data-driven decisions.
3. Providing leadership.

Below follow further details on each intervention and a description of the implementation process.

**1-Enhancing Inter-professional collaboration:**

**Geographical cohorting of patients and providers**: Previously, a hospitalist provider would travel to several units daily depending on the location of his or her patients. This made their presence on any single unit fleeting. Similarly, case management and pharmacist support was assigned on the basis of team lists, which spanned several units. In contrast, similar to other hospitals, patients at Methodist Hospital (MH) were already targeted to specific units based on their disease state. The presence of unit level nursing managers also predates the ACT model. To simultaneously enhance IPC and patient centeredness, the structure of the team was changed to become unit based. In order to achieve this, the support of case managers, social workers and pharmacists was first sought. After these disciplines were geographically cohorted, the hospitalists changed their workflow. Hospitalists were asked to articulate preferences for the unit they would like to be localized to. Teams were renamed and each team was assigned a unit. A date for the implementation of the new workflow was set. On the agreed date, the clinical manager of the hospitalist group arrived early in the morning and the entire census of the hospitalist service was redistributed by 7 am. To maintain geographical cohorting on a day-to-day basis, new patients are now assigned teams once a specific bed has been targeted. The goal for the geographically cohorted team is to have a minimum of 80% of their patients on that unit. Providers are localized for at least 4 consecutive months at the end of which they may choose a different unit. The case managers, unit physician leaders and pharmacists are assigned to a unit permanently. The ACT model initially targeted the cohorting of hospitalists, case managers and social workers, pharmacists and clinical nurse specialists. However as the model has matured other disciplines are also following. Learners including residents, pharmacy and medical students are embedded into the team when rotating on hospital medicine.

**Bedside collaborative rounding:** Geographically cohortedproviders round on their patients with the bedside nurse guided by a customizable script. The goal is to have a shared understand of the pressing issues and plans for the day, address patient and nursing concerns and identify any barriers to the transition of care.

**Daily Huddle:** The hospitalist and the interdisciplinary team for the unit meet each weekday to discuss patients’ needs for a safe transition out of the hospital. Each unit determined the timing, location and script for the huddle. The goal is to cover all patients on the unit with 1-2 minutes spent per patient. The hospitalist, pharmacist, case manager, unit charge nurse, clinical nurse specialist and learners are expected to attend. Nutritionists, bedside nurses, respiratory therapists, physical and occupational therapists and social workers also attend the huddle whenever possible. Appendix A2 is a sample of the script utilized for the huddle, delineated by the different roles of the members of the team.

**Hospitalist and specialty co-management agreements:** Guidelines delineating responsibilities for providers of each specialty were developed. The hospitalist group’s physician leader who met with the different specialty representatives led this effort. Examples include orders pertaining to the management of a dialysis catheter in a patient with end stage renal disease, the removal of drains in post surgical patients, wound care etc.

**Unit white board:** Each unit has a white board at the nursing station. Similar to the huddle it is focused on discharge planning with a focus on articulating endpoints for the current hospitalization for each patient and barriers to achieving that endpoint. Members of the ACT team are responsible for populating the section relevant to their focus. This is often done as the huddle is conducted.

1. **Enabling Data-Driven Decisions:**

**Monthly review of unit level data:** The department of data analytics developed a ‘data dashboard’. Key metrics including length of stay (LOS), patient satisfaction scores, readmission rates and costs are tracked and attributed to the discharging unit. The data for every unit is available to the unit’s leadership at all times. The data can both be ‘drilled’ down to patient and/or provider level specificity or viewed at the level of the unit. Unit specific data is also collated monthly by the ACT program director and distributed to each unit’s leadership. Monthly meetings lasting one hour are held in the unit’s classroom to review trends. Hospitalists, specialty physicians (where relevant), case managers, unit nurse managers, clinical nurse specialists, social workers and pharmacists are expected to attend.

**Weekly patient satisfaction rounding:** The unit’s nurse manager and physician leader conduct weekly satisfaction rounds on patients. Patients whose mentation is altered (and there is no family member present) or who are belligerent are excluded. The conversation is open-ended and avoids ‘quizzing’ patients. The unit leaders are expected to reflect on the information garnered with a focus on actionable information. If a patient identifies an issue the leaders are advised to **a**pologize, **c**orrect, **t**ake action, **l**isten, **e**mpathize, **a**pologize without placing blame, **r**espect and **n**egotiate (ACT & LEARN). These rounds are more real-time feedback that supplement the information obtained through post discharge patient satisfaction surveys.

1. **Providing Leadership:**

Hospitalist and specialty leaders are committed to serve each unit for at least one year as a resource for both medical and operational problem solving. General medical units only have a hospitalist physician leader while specialty units have both a hospitalist and the specialty represented. The leader stays closely connected with the unit’s nurse managers, other leaders and other physicians on the unit. In addition to day-to-day troubleshooting, the leader is responsible for monitoring outcome trends including reviewing the monthly unit-level data, participating in quality improvement efforts and leading the daily huddle. There is currently no stipend, training or other incentive offered for the role.

**Implementation and the role of the ACT program director:**

The Methodist Hospital Executive Leadership team recognized that the care provided in the hospital was fragmented, lacked accountability and resulted in large variations in clinical practice. The conceptual framework of the ACT emerged to both improve the quality of care delivered and contain costs. A pilot unit was formed in the cardiovascular surgery ward as there was strong support from the specialty team there. The successes of that unit were shared with the other units, specialists and hospitalists which helped the model gain traction. The interdisciplinary teams (including case management and pharmacy) were approached to restructure their workflow geographically. This restructuring was viewed favorably both because of the results of the pilot unit and as it provided improved efficiency for the workforce by eliminating commuting between units and consolidating the number of physicians they had to communicate with. Once the interdisciplinary team was unit based, the hospitalist teams followed. Concomitantly, the data dashboard was developed. The ACT program director’s role included rounding on units to resolve barriers to the huddle, bedside rounding and communication between practitioners. In addition to day-to-day problem solving, the program director served as a reminder of the commitment of the executive leadership team to the success of the model and as a resource for the new unit leaders. The program director also collated outcome data and distributed it to the units and helped expand the model to the critical care units.