Envisioning the Future: A New Model of Care

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Accomplishing the Triple Aim

• Institute of Healthcare Improvement Triple Aim
  • Improve the patient experience of care addressing both quality and satisfaction
  • Improving the health of populations, and
  • Reducing the per capita cost of healthcare

• Requires:
  • Integrated healthcare delivery system
  • Development of a care continuum that bridges all venues of care (acute, sub-acute, community)
  • Population-focused strategies
  • Technological solutions (EHR, access to “big data”)
Integrated Healthcare Delivery System

- Hospital
- Emergency Department and Urgent Care Center
- Ambulatory Surgery Center
- Clinics
- Health Plan
- Retail Pharmacy
  - Sub-acute care (LTAC, Rehab, SNF)
  - Telehealth
  - Home Care
  - Palliative Care/Hospice
Integrated does not mean seamless . . . . And seamless does not mean we have a sky bridge connection.
Introduce patient
Mrs. Perkins

• 84 y.o. female with a four-year history of heart failure
• Hx of DM Adult Onset, hypertension and confusion that worsens after sunset
• Lives alone, one daughter lives in Dallas and has her durable power for healthcare
• Recently she was enrolled in a new Heart Failure Population Management Program by her cardiologist. She is on Medicare and her supplemental is the Our Lady of Perpetual Innovation Healthcare Plan.
• Prior to her enrollment she had over 50 clinic visits, 15 ED visits and 10 hospitalizations during a three year period
Heart Failure Population Management Model

• All caregivers involved in Mrs. Perkins care can access her electronic health record
• During her last hospitalization, risk for readmission was calculated to be high. Therefore she was discharged to home with a wrist device that transmits health data via wireless telehealth technology. She will be monitored by a team of practitioners who will call her daily.
• She also has a population care coordinator
• Her daughter receives frequent updates
Heart Failure Population Management Model

• Mrs. Perkins at home:
  • Telehealth equipment does not require a computer, or a telephone line
  • Wears her wrist device continually which transmits HR, temperature, and pulse oximetry readings as well as steps per day. Additionally she has a wireless B/P cuff and bathroom scale that transmits daily B/Ps and weight.
  • Home health aides visit three times per week, the RN once per week
  • Her data is centrally monitored by practitioners in Home Health/Telehealth. She receives a daily call from a practitioner.
  • Her data is trended. Changes in her data triggers an immediate phone call.
Heart Failure Population Management Model

• Mrs. Perkins at home:
  • For the past three days she has been less active, her weight has increased, and today she is 7 lbs over her usual weight. Her B/P and HR are up, oxygen saturation is down.
  • When the telehealth nurse calls Mrs. Perkins, she notes she is slightly confused, her breathing is labored and she cannot remember if she took her meds
  • Telehealth called Mrs. Perkins daughter and she is en route, as is a Home Health RN
  • When the Home Health RN arrives she videoconferences with the HF Population Care Coordinator and the telehealth RN using Face Time
Heart Failure Population Management Model

- As the care coordinator, the telehealth nurse and the home health nurse conference, they are all looking at Mrs. Perkins trended data for the past several days. They also have access to her complete health history.
- Face Time allows for further assessment of her status.
Heart Failure Population Management Model

• Mrs. Perkin’s daughter has arrived. It is determined that she needs to move to the next appropriate level of care. Her daughter will transport her by personal vehicle to OLOPI Healthcare System to the Heart Failure Population Management Unit.

• She will be admitted as an observational patient and will go directly to the unit, and not to the Emergency Department.
Heart Failure Population Management Model

• By the time Mrs. Perkins arrives to the unit, the Care Coordinator has identified a bed for her and text messages have gone to appropriate staff. She is being admitted in the observational status under the ACC-AHA clinical guidelines:
  • She will be cared for by a team of nurse practitioners, hospitalists, RNs and aides
  • She has a standardized order set based on the ACC-AHA guidelines for heart failure and the core measures will be monitored via wireless technology and the EHR to track her outcomes
  • Orders outside the scope of the clinical guidelines or usual admission orders for an observational patient will require an override process and consultation with a nurse or physician attending
  • The nurse who admits her knows her well. She has monitored her on telehealth, and cared for her on other admissions.
Caregivers can remain up to date on Mrs. Perkins’ care via tablets that connect to the EHR, allow texting and Face Time.
Heart Failure Population Management Model

• The HF Population Management Unit occupies one large patient care unit with a census of up to 48.

• It offers the following care continuum:
  • Care Coordination
  • In-patient care
  • Observational patient care
  • E-ICU
  • Hospice care
  • Telehealth

• In-patient, observational and hospice care can occur in the same room

• There are separate telehealth and e-ICU areas
Heart Failure Population Management Model

- Two experienced RNs with ICU experience are staffing the E-ICU today. They are monitoring four HF patients at Parkland who are on other units and one inmate in the jail infirmary. Additionally, they are monitoring one patient at Hopkins County Memorial Hospital working with staff there to determine when and if the patient needs to be transferred to Dallas.
Heart Failure Population Management Model

- Staffing is based upon a professional credentialing model. Nurses who are credentialed to do more, make more money.
  - Level 1 (Basic, new graduates, no experience) – Credentialed for inpatient care only
  - Level 2 (Requires at least one year of exp) – Credentialed for at least two areas such as in-patient/observation or in-patient/hospice
  - Level 3 (Requires at least two years of exp) – Credentialed for at least three areas and must include e-ICU
  - Level 4 (Requires at least two years of exp) – Care Coordination
- Nurses who no longer can do bedside care now can do telehealth, e-ICU. The high levels rarely float or get cancelled for shifts.
Heart Failure Population Management Model

• Other uses for this unit:
  • When ED is at capacity, HF patients can be brought to the unit and treated by NPs and Hospitalists
  • Telehealth is also monitoring five patients discharged to various homeless shelters. The shelters have possession of the wrist bands. Residents report to the shelter office daily, where wrist bands are put on for data transmission, then removed and secured.
• Back to Mrs. Perkins:
  • Over the next two days Mrs. Perkins is not achieving the desired outcomes. The NP consults with the hospitalist and Mrs. Perkin’s is changed to in-pt. status when she is 36 hours into her observational status.
  • She will remain in the same room. Her care will be managed by a hospitalist, using a wider and deeper range of interventions.
At day five of Mrs. Perkin’s stay, a care conference is conducted in the patient’s room using videoconferencing via the patient’s TV monitor/HD camera. Ms. Perkins, her family, her clinic cardiologist and the hospitalist discuss the care options. Her heart failure is not improving. Admission to hospice recommended. She will remain in the same room receiving hospice care.
Heart Failure Population Management Model

- After two days of in-patient hospice care, Ms. Perkins and her daughter are more comfortable and the decision is made to take her to her daughter’s home under the care of out-patient hospice. She expired peacefully 14 days later surrounded by family and friends.
In Closing

How would a population-based model change:
• The nurse’s perspective?
• The patient’s perspective?
• The family’s perspective?

What an exciting future!