Hotspotting in Healthcare: Using Care Management to Improve Healthcare Outcomes

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Background

- Hotspotting in healthcare is a method to pinpoint high utilizers of healthcare services using available data and stage interventions to help patients improve their health and reduce overall healthcare costs
- The goal of this summer's hotspotting project was to identify patients who are considered "Super Utilizers" of healthcare services at UMass and use case management techniques to improve their health
- The Office of Clinical Integration at UMass is an organization that provides care management for high-risk patients that use MassHealth

Approach

1. Patient referred to PBCM program by provider
2. Needs assessment conducted during face-to-face meeting with patient
3. Appropriate interventions researched and provided to patient
4. Follow-up outreach to patient to record progress

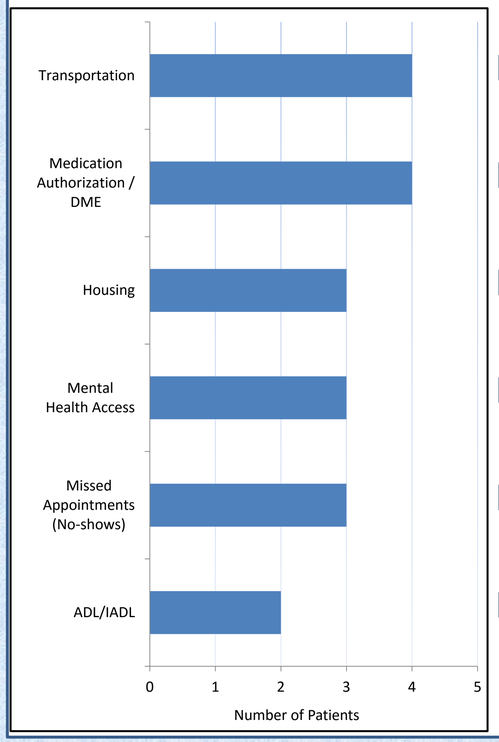
Care Management Assessment (Abbreviated)

Synopsis: Short summary of what you spoke about
Current disease state: Diagnosis being treated for currently? How do you feel things are going, controlled/not well controlled?
Active/Current medications: What meds are you taking right now, frequency?
Adherence to medication(s): How often do you think you miss your meds? (copay issues/ reminds MH copay policy.)
Hospitalizations: Any hospitalizations recently? If so what was it for/ how long in hospital? How is it going since the last hospitalization?
ED utilization: Ask last time in ED and if yes, what was it for? How is it going since the last ED visit?
Current access to care/services: Any concerns with getting care w/ pcp/ specialists etc. Are you able to get appts when you need them?
ADL/ IADL deficits: Do you require any assistance w/ (ADL's/IADL's) personal care, cooking, cleaning, shopping etc? Do you have services in the home PCA/HHA?
DME needs: Do you use any assistive devices ie; cane, walker, W/C etc? Do you need assistance w/ getting DME devices?
Social support issues: Who lives with the patient at home? If pt lives with someone else, is it temporary?
Family situations pertinent to care: What family/ friend supports are in place? Do you feel like you are being supported?
Transportation: How do you get to your appts? Missed appts d/t transportation issues? Offer PT1 (prescription transportation).
Insurance elig/auth: Issues: Look up eligibility in IDX if Medicaid 2003 / pcc is not visible. Any other insurance eligibility or prior auth issues?
Housing: Do you have a place to live? Any concerns w/ housing?
Income/ Benefits: Do you have income? What type ie SSDI/SSI/EFDCA? SNAP, housing assistance, fuel assistance? Any concerns with either?
Advance Directives: Do you have something in place if you were not able to speak for yourself, ie; healthcare proxy, living will, medical power of attorney?

Sites of face-to-face meeting with patient: patient's home, UMass University Hospital, St Vincent's Hospital

Results

Top Needs Identified by Patients (n = 7 patients)



Sample Interventions Conducted () = No. patients

- Set up PT-1 (4)
- Facilitated PA for medications (2)
- Referral for knee/back braces (1)
- Referral for glasses Rx(1)
- Education about housing options (1)
- Referral for mental health care management (1)
- Referral for psychiatry eval (2)
- Phone calls to remind patients about appointments (3)
- Found new visiting nurse (1)
- Referral for home health agency (1)

Only one patient had an ER visit or hospital admission since engagement began.

Case Example

Patient Description	JS is a 46 y/o male with PMH of ESRD (s/p renal transplant), anxiety, depression, T2DM, and HTN
Main Needs	▪ Frustration with home health care nurse ▪ Missed appointments d/t transportation ▪ Education regarding diabetes ▪ Prior authorization(PA) for insulin pen ▪ Handicap status
Interventions	▪ Found new nurse for patient ▪ Facilitated transportation ▪ Attended appointments with specialists to reinforce education about diabetes ▪ Facilitated PA for insulin pen ▪ Sent handicap placard application
Outcomes	▪ Patient satisfied with new nurse ▪ Patient more informed about diabetes ▪ Received insulin pen ▪ Applied for handicap status ▪ No additional ED visits / admissions

Take Home Points

- Social determinants of health (e.g. housing, transportation, etc.) can be important factors that prevent patients from maintaining good health
- A team-based approach to healthcare that includes case managers and care coordinators can play a vital role in assisting patients improve their health
- Patients engaged in a care management program may be more motivated to take an active role in their healthcare
- Patients seem more satisfied with their care when a case manager is involved:
  - *"I was glad that someone was there to advocate for me."*
- Barriers to effective case management include loss of patients to follow-up, lack of patient interest, ineffective social services and miscommunication between healthcare providers

Future Work

- Develop a hotspotting population health clerkship project for MS2 students
- Develop ways of collaborating with the Emergency Department at UMMS
- Refine patient selection and recruitment to focus on need and not eligibility
- Continue improving patient needs resource guide
- Help with organizing hotspotting symposium in the Fall of 2016

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