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Patient-Centered Medical Home and Care Transitions
Part I
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Your Life Your Health
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As the nation grapples with the theory of the future of healthcare, some of us are experimenting not only with ideals but with practical solutions. At SETMA, we believe that the future of healthcare has four domains, which must be addressed in any solution which will be sustainable. They are:

1. **The Substance** -- Evidenced-based medicine and comprehensive health promotion
2. **The Method** -- Electronic Patient Management
3. **The Organization** -- Patient-centered Medical Home
4. **The Funding** -- Capitation with payment for quality outcomes

Billions paid each year for care which is not evidence-based

The first of these domains is affirmed by everyone but only as an ideal. Evidence-based medicine refers to treatments which have been shown to be effective by random-controlled, research studies. These studies are rigorously designed and subjected to peer-review for that design, for the data developed and for the conclusions. Everyone agrees that this should be the foundation of healthcare but healthcare providers, the Federal Government, insurance companies and patients still prescribe, pay for and participate in treatments which not only are not supported by research but which are shown by research to be harmful. Billions of dollars are paid each year for such services, often for no other reason than the strong lobby supported by industries that profit from those services.

Recently, this writer asked a Federal healthcare official if the Centers for Medicare and Medicaid (CMS), which is the largest insurance company in the world, supports only evidenced-based medicine? His response was, "Yes." The follow-up question was asked, "Are you and CMS committed to change the trajectory of healthcare cost in the United States?" He answered, "Yes." The final question was, "Then why are we paying billions of dollars a year for a form of healthcare which is not supported by evidence?" His response, "Because it is legal in all states."

There is no element of evidence-based medicine which involves a question of legality. Stated another way, whether a treatment modality is legal or not is not a criteria by which to determine whether it is evidenced-based. Until CMS and the healthcare industry stops paying for non-scientific healthcare, we will never solve healthcare cost in this country. Until politicians stand up to lobbyists paid for by providers of non-scientific healthcare modalities, we will never solve the healthcare cost in this country.

Comprehensive Wellness Promotion

When I began practicing medicine in 1973 essentially no payments were made for wellness promotion. When Medicare was made law in 1965, provision for payments was made for illness care. Preventive healthcare was not often paid for. Screening healthcare was not paid for. Immunizations were not always paid for. And, there was little if any focus on wellness.

This was before we had screening tests like colonoscopies so anyone who needed to have their colon examined had to have a "barium enema." The only problem was that insurance would only pay for this test if it was done in the hospital. Consequently, patients often demanded to be put in the hospital. In that case, an $80 test resulted in an $800 cost.

The situation is a little better today but it is still far from ideal. Like evidence-based medicine, comprehensive wellness is promoted by everyone but not paid for by many. Wellness promotion has to do with surveillance and screening for illness and with the encouragement of healthy lifestyles and choices. Like some many other areas in our economy, what we value, we pay for and we pay well. Thus, don't ask what our society values, as we will get one answer. Ask what we pay for and how well we pay for it and you will find what we really value.

Electronic Patient Management

The second domain of healthcare transformation is the deployment of electronic tools with which to management the care of patients. When SETMA started doing "electronic-patient-management" (EPM) using electronic-health-records (EHR) in 1998, we applied Dr. Peter Senge's work in *The Fifth Discipline* to medicine and particularly to the design of an EHR. The link http://www.jameslhollymd.com/The-Fifth-Discipline-and-Electronic-Patient-Records.cfm will take you to multiple articles about our application of his work to medicine. This innovation in the design and deployment of EHR has led SETMA to be named by the Office of National Coordinator, HIT, HHS, as one of thirty exemplary practices in clinical decision support. Other recognitions of our work are displayed at www.jameslhollymd.com under the heading Awards and Recognitions.

Key to EPM is Senge's idea that "learning has come to be synonymous with 'taking in information'… (which) is only distantly related to real learning." Today healthcare can:

- "Create more information than anyone can absorb
- "Foster greater interdependency than anyone can manage
- "Accelerate change faster than anyone's ability to keep pace."

Just as "paper-and-pencil" was the methodology for 19th Century healthcare and "dictation" was the methodology for 20th Century medicine, "EPM-via-EHR" is the only effective methodology for 21st Century healthcare. At SETMA's website www.jameslhollymd.com under ***Your Life Your Health***, there is an icon entitled ***Medical Records***. By accessing this hyperlink you will find twenty-two articles on the concepts of electronic-patient-management by electronic-health-records. This is the future of healthcare and it started in the 1990s.

Patient-Centered Medical Home (PC-MH)

The third domain of healthcare transformation is PM-MH. At www.jameslhollymd.com under ***Your Life Your Health*** there is another icon entitled ***Medical Home***. By accessing this hyperlink, you will find 33 articles on PC-MH. The major principles of PC-MH are:

- Comprehensive Wellness Promotion
- Coordination of Care producing Coordinated Care
- Collaboration between the healthcare provider and the healthcare recipient
- Communication between the healthcare provider and the healthcare recipient at times other than when the patient is in the provider's office
- Calculation of healthcare risk in order to provide optimal care
- Compilation of healthcare data for individual patients and for populations of patients in order to find leverage points for improving everyone's care.
- Constant innovation to find new, effective and scientifically sound ways of promoting health and wellness, and restoring health when it has been lost.

There are few places where the ideals of PC-MH are as clearly needed and as clearly seen as at the points of "transitions of care" from one setting of care to another, such as:

1. Hospital inpatient to Ambulatory Outpatient.
2. Ambulatory outpatient clinic to ambulatory outpatient home
3. Hospital inpatient to long-term, residential care (Nursing Home)
4. Many more

It is at these points that the imperative for care in a PC-MH model of care is most clearly seen. It is at these points where the quality of care is most often diminished or even lost. It is by examining these points that the "organizational domain" of the future of healthcare can be best examined.

Care Transitions

In **SETMA's Model of Care** (for a full description see SETMA's presentation to the Office of National Coordinator at the following link: http://www.jameslhollymd.com/The-Future-of- Healthcare.cfm), **Care Transitions** involves:

- Fulfillment of the Physician Collaborative for Performance Improvement (**PCPI) Transitions of Care Quality Metric Set** which has fourteen data points and four action items.
- **Post Hospital Follow-up Call** which is a 12-30 minute call which takes place the day after the patient leaves the hospital which is made by members of SETMA's **Care Coordination Department**.
- **Plan of Care and Treatment Plan**, which is symbolized by the "baton."
- **Follow-up visit** with primary provider in less than seven days of discharge and usually within three.

Over the past fourteen years, SETMA has developed numerous tools which enable us to sustain an effort to impact preventable readmission rates. In June, 2009, the PCPI published a quality metric set on Transitions of Care. Because SETMA had been completing hospital history and physicals and discharge summaries in the EHR, we were prepared to deploy this measurement set. We have been successfully doing so since that time with 6,147patients discharged from the hospital.

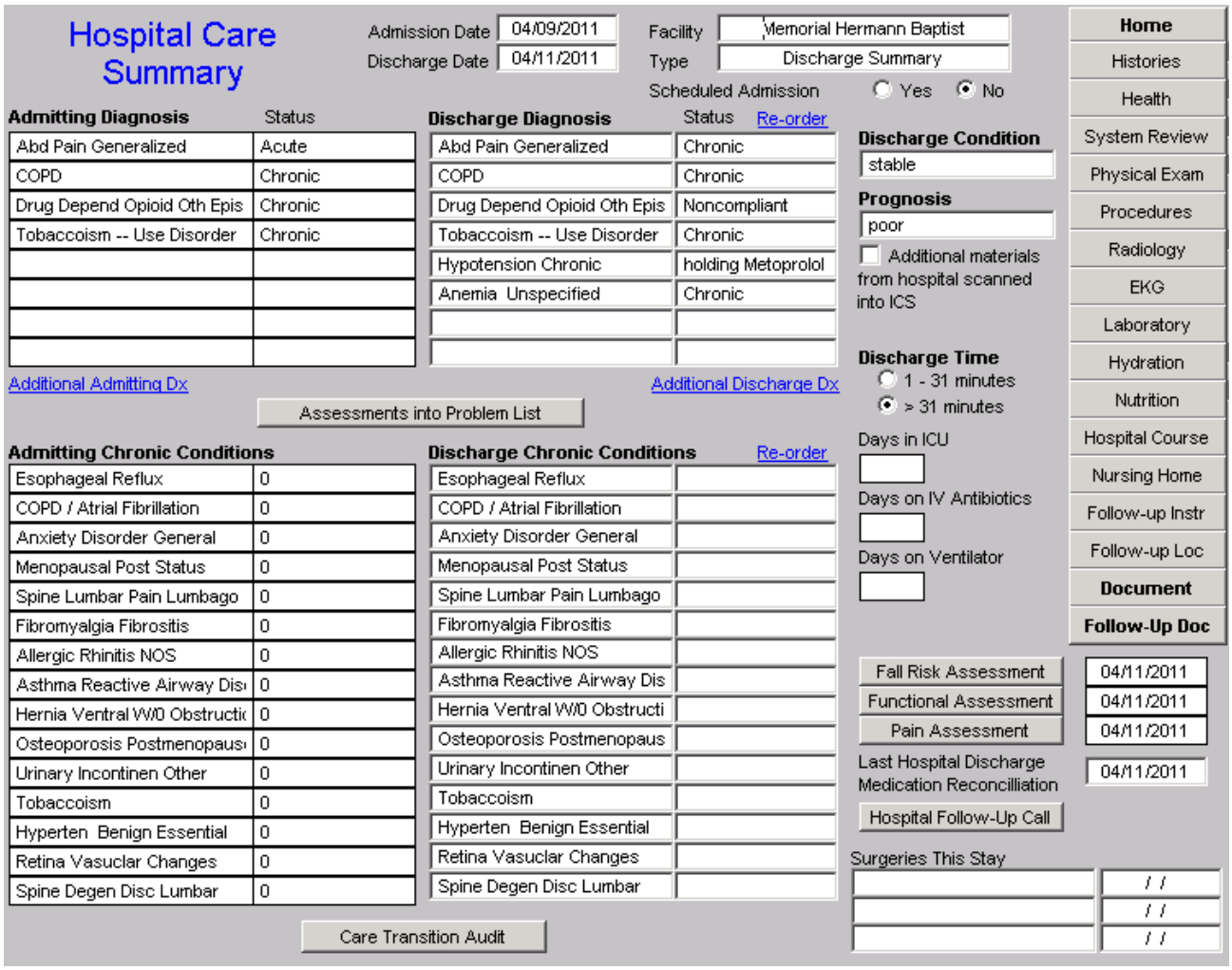
Changing the Name of the "Discharge Summary"

In September, 2010, at a National Quality Forum workshop of Care Transitions in Washington, it occurred to us that the name "discharge summary" was outdated and not helpful. The document had become almost an administrative function, often completed weeks after the patient left the hospital. It was not the critical element in the patient's moving from their inpatient or emergency department state to the ambulatory or other setting.

We immediately changed the name of that document to "**Hospital Care Summary and Post Hospital Plan of Care and Treatment Plan**." This is a long and perhaps awkward name, but it is extremely functional, focusing on the unique elements of Care Transition. From June, 2009 to April, 2011, SETMA has a 99.1% rate of completing this document at the time the patient leaves the hospital. During this time we have discharged 6,147 patients from the hospital.

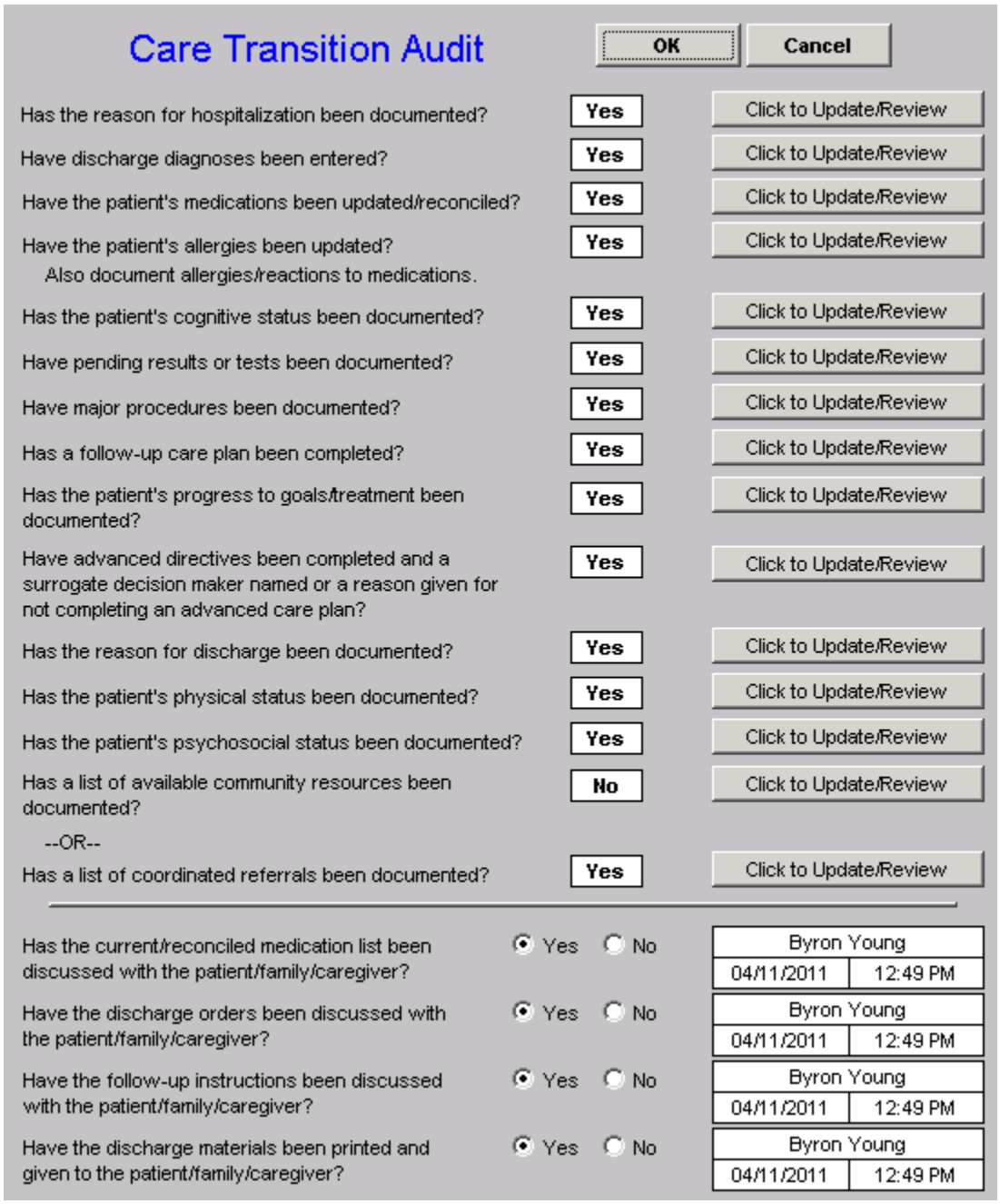
Hospital Care Summary

This is a suite of templates with which the discharge document is created. (For a full description of this see the following on SETMA's website: **Electronic Patient Tools; Hospital Care Tools; Discharge Summary Tutorial**) The following is a screen shot of the **Master Discharge Template** entitled "**Hospital Care Summary**". This screen shot is from the record of a real patient whose identify has been removed.



At the bottom of this template you will see a button entitled "**Care Transitions Audit**." Once the suite of templates associated with the Hospital Care Summary has been completed, the provider depresses this button and the system automatically aggregates the data which has been documented and displays which of the 18-data points have been completed.

The elements in black have been completed; any in red have not.



If an element is incomplete, the provider simply clicks the button entitled "**Click to update/Review**." The missing information can then be added. This fulfills one of SETMA's principles of EHR design which is "**We want to make it easier to do it right than not to do it at all**."

At appropriate intervals, usually quarterly and annually, SETMA audits each provider's performance on these measures and publishes that audit on our website under "**Public Reporting**," along with over 200 other quality metrics which we track routinely. This reporting is done by provider name. The following is the care transition audit results by provider name for 2010. This presently is posted on our website. The audit is done through SETMA's COGNOS

Project which is described in detail on our website under **Your Life Your Health** by clicking on the icon entitled **COGNOS**.

Care Transition Audit (Section A)

Discharge Date(s): 01/01/2010 through 12/31/2010

Provider	Reason for Hospitalization	Discharge Diagnoses	Medications Updated Reconciled	Documentation of Allergies	Cognitive Status	Pending Test Results	Major Procedures	Follow-Up Care Plan	Progress to Goals Response to Treatment
Ahmed	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Anwar	95.0%	100.0%	82.4%	88.9%	93.5%	92.9%	90.7%	93.7%	95.0%
Aziz	98.4%	100.0%	95.2%	94.7%	96.7%	98.2%	95.6%	97.2%	95.6%
Colbert	100.0%	100.0%	50.0%	50.0%	83.3%	100.0%	66.7%	100.0%	100.0%
Cricchio	91.7%	94.4%	94.4%	91.7%	94.4%	91.7%	88.9%	88.9%	91.7%
Curry	99.1%	100.0%	97.2%	95.3%	96.2%	100.0%	95.3%	98.1%	98.1%
Deiparine	97.7%	100.0%	90.0%	95.8%	97.2%	96.3%	95.6%	96.3%	97.4%
Groff	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gulfcoast	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Halbert	98.2%	99.5%	94.1%	95.0%	95.9%	98.2%	94.1%	95.4%	96.3%
Henderson	84.0%	100.0%	64.0%	96.0%	96.0%	96.0%	88.0%	92.0%	92.0%
Holly	94.2%	99.7%	87.3%	94.0%	96.8%	91.8%	91.2%	91.3%	93.9%
Leifeste	97.6%	100.0%	88.0%	95.3%	98.6%	95.5%	95.9%	96.6%	96.4%
Murphy	98.7%	99.6%	95.7%	94.5%	95.3%	98.7%	95.3%	97.9%	94.5%
Qureshi	90.4%	100.0%	84.6%	96.2%	98.1%	90.4%	92.3%	94.2%	88.5%
Satterwhite	98.3%	100.0%	90.4%	90.4%	94.8%	99.1%	93.9%	93.0%	98.3%
Spiel	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Thomas	97.3%	99.7%	87.2%	93.9%	96.5%	95.5%	97.1%	95.2%	97.1%
Vardiman	96.9%	100.0%	88.8%	91.8%	96.9%	98.0%	93.9%	98.0%	95.9%
Young	86.8%	100.0%	73.6%	88.7%	86.8%	86.8%	86.8%	83.0%	86.8%
SETMA Totals :	96.4%	99.8%	89.1%	93.8%	96.4%	95.1%	93.7%	94.6%	95.4%

Care Transition Audit (Section B)

Discharge Date(s): 01/01/2010 through 12/31/2010

Provider	Advanced Directives	Reason for Discharge	Physical Status	Psychosocial Status	Community Resources Coordinated Referrals	Medication List	Discharge Orders	Follow-Up Instructions	Discharge Materials
Ahmed	100.0%	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%
Anwar	76.1%	95.2%	94.5%	88.7%	68.5%	77.6%	78.3%	78.3%	78.1%
Aziz	88.5%	97.9%	97.2%	93.9%	33.8%	83.7%	83.7%	83.5%	83.2%
Colbert	50.0%	100.0%	83.3%	50.0%	33.3%	50.0%	50.0%	50.0%	50.0%
Cricchio	36.1%	91.7%	97.2%	86.1%	8.3%	86.1%	86.1%	86.1%	86.1%
Curry	88.7%	100.0%	96.2%	96.2%	48.1%	85.8%	85.8%	85.8%	85.8%
Deiparine	85.6%	97.4%	97.2%	93.7%	77.3%	84.7%	84.7%	84.7%	84.5%
Groff	66.7%	100.0%	100.0%	66.7%	66.7%	100.0%	100.0%	100.0%	100.0%
Gulfcoast	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Halbert	88.6%	98.2%	95.9%	93.6%	47.9%	81.3%	81.7%	81.7%	81.7%
Henderson	24.0%	92.0%	96.0%	92.0%	44.0%	56.0%	56.0%	56.0%	56.0%
Holly	81.8%	93.2%	97.3%	91.8%	76.9%	80.7%	80.8%	80.7%	80.6%
Leifeste	85.2%	96.4%	98.6%	93.1%	69.4%	84.4%	84.4%	84.4%	83.8%
Murphy	88.5%	97.9%	96.6%	95.7%	53.2%	87.2%	87.2%	87.2%	87.2%
Qureshi	84.6%	90.4%	98.1%	96.2%	76.9%	82.7%	82.7%	82.7%	82.7%
Satterwhite	69.6%	98.3%	95.7%	90.4%	43.5%	69.6%	69.6%	69.6%	68.7%
Spiel	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Thomas	84.8%	96.0%	97.1%	93.4%	73.4%	83.2%	83.5%	83.5%	83.2%
Vardiman	74.5%	98.0%	96.9%	91.8%	62.2%	79.6%	78.6%	78.6%	78.6%
Young	67.9%	83.0%	86.8%	84.9%	30.2%	69.8%	69.8%	69.8%	69.8%
SETMA Totals :	82.7%	95.8%	96.8%	92.5%	63.2%	81.8%	81.9%	81.9%	81.7%

Once the **Care Transition** issues are completed, the **Hospital-Care-Summary-and-Post-Hospital-Plan-of-Care-and-Treatment-Plan** document is generated and printed. It is given to the patient and to the hospital. The complexity of the **Transition of Care** is illustrated by this analysis of how many different places this document can be needed. It can go from:

1. **Inpatient to ambulatory outpatient** (family) -- The "baton" in a printed format is given to the patient or in the case of a minor or incompetent adult to a parent or care giver. The "plan of care and treatment plan" -- "the baton" -- is reviewed with the patient, parent and/or family before the patient leaves the hospital.
2. **Inpatient to ambulatory outpatient** (clinic physician) -- for patients who are seen at SETMA, the "the baton" is created in the EHR and is immediately accessible to the follow-up SETMA provider. The provider is alerted by appointment when he/she is to see the patient and that the "baton" is available for review.
3. **Inpatient to ambulatory outpatient** (follow-up call) -- after the Hospital Care Summary and Post Hospital Plan of Care and Treatment Plan (HCSPHPCTP) is completed, a template is completed and sent to the Department of Care Coordination. This template is in the EHR where the HCSPHPCTP also resides. Both are immediately accessible to the

Department. The "follow-up call from the hospital" call request is delayed for one day so that the call is made the day after the patient leaves the hospital.

4. **Emergency Department to ambulatory care** -- the same process as in "1" above.
5. **Inpatient to Nursing Home** -- the "baton" with a special set of Nursing Home orders is given to the patient or family and a copy is sent to the Nursing Home with the transportation to the Nursing home.
6. **Inpatient to Hospice** -- the same as with number "6"
7. **Inpatient to Home Health** -- the same as number "5" and "6" above. If the patient is seeing SETMA's home health, they have access to SETMA EHR and thus to the "baton."
8. **Inpatient to outpatient out of area** -- "Baton" given to patient and family and also posted to web portal and HIE. Token sent to health provider in remote area which allows one time access to this patient's information.

With this infrastructure and with these care coordination, continuity of care and patient support functions, SETMA is ready to make a major effort to decrease preventable readmissions to the hospital.