



## The St. Mary's Health Center Hospitalist Unit: A Case Study in Physician-Hospital Alignment

### Background

The Internal Medicine Department at St. Mary's Health Center in St. Louis, Missouri, part of SSM Health Care system, began the process of developing a comprehensive strategic plan for an innovative hospital medicine program in 2005.

To achieve its goals, Dr. Morey Gardner, Department Director and Residency Program Director, Department of Internal Medicine collaborated with IPC The Hospitalist Company to hire Philip Vaidyan, MD, FACP to head a hybrid commercial-academic hospitalist program dedicated to best practices, best outcomes, and best education in hospital medicine. Dr. Vaidyan has served dual roles as Director of Hospital Medicine in the Department of Internal Medicine and as the Practice Group Leader of the IPC Hospitalist team at St. Mary's since 2005.

### Physician-hospital alignment objectives

St. Mary's established four key objectives for the new hospitalist program:

1. Deliver the best possible patient care, which involved promoting communication among all members of the patient's care team and ensuring that the primary care physician (PCP) was updated regularly with excellent data.
2. Establish an effective system for transition of care and patient follow-up. The question, "Who is following up?" is at the core of the huge problem of patient safety. A *New England Journal of Medicine* study found that half of patients who are readmitted within 30 days didn't have follow-up appointments with their PCPs. That can put their patients at significant risk of a post-discharge adverse event.

3. Create an environment, both physically and culturally, that encourages the hospitalist teamwork and relationships. At St. Mary's it was an ongoing challenge to have all key stakeholders of the inpatient care delivery system to formally and informally congregate in one place within the facility. Dr. Vaidyan and other providers wasted time and energy tracking down patients scattered throughout the 582-bed hospital. He could have an admission in one corner of the hospital, a discharge in another, and a third discharge in another nursing unit.
4. Establish a successful hospitalist model based on a call schedule which provides continuity of patient care. Dr. Vaidyan has observed that facilities choosing to subsidize their hospitalist practice may not be investing their money conservatively if the providers are on a 7-on, 7-off "shift model" schedule. The shift model of scheduling may have the effect of increasing fragmentation of care while encouraging providers to allocate their free time to other practice groups, often moonlighting at other local facilities.

St. Mary's also wanted to build a hospitalist teaching program for its internal medicine residents to help them develop the complete skill sets needed for a successful internist. These fundamental skill sets are in the areas of patient care, leadership, organization, communication, conflict resolution and healthcare economics.

### Implementing the physician-hospital alignment program

Dr. Gardner and Dr. Vaidyan agreed that the best approach to achieving their objectives over the long term was to assign hospitalists to specific units within the St. Mary's facility. Together they convinced

hospital administrators to designate one of the nursing units as a specialized hospitalist unit on a trial basis. The 3 West Wing of the hospital, which was due for renovation, was selected to be the new hospitalist unit. Dr. Vaidyan headed the implementation of the pilot project in June 2008 with a new, thoroughly rebuilt 20-bed, 8,400-square-foot unit with five hospitalists and 24 RNs. “The new approach centralized care and maximized time spent with patients and staff,” he said. “The nurses appreciated having a doctor available all day without having to call for orders and wait for callbacks, and we’re also nearby for unexpected patient problems and crises.”

By centralizing inpatient care each hospitalist was saving approximately 60 minutes per day, which was then reallocated to patient care. Additionally, the hospitalists found that they were receiving approximately 65% fewer pages per day, since the hospitalists were in closer proximity to the nurses. “Having our own inpatient unit made it easier for all members of the care team to spend more time communicating with patients and their families,” noted Patti Kelly, RN, St. Mary’s Executive Director of Nursing.

#### **Innovations introduced by the new hospitalist unit**

Based upon the evidence from the pilot project, in January 2009 the Board of Directors of St. Mary’s approved the design and construction of a 30-bed medical-surgical unit dedicated exclusively to inpatient care, managed by a team of hospitalists from IPC and supervised by Dr. Vaidyan. The IPC team worked closely with St. Mary’s architects and designers to create a physical space to meet the needs of patients and providers working as a tightly knit inpatient community, with its own office, computers, wireless Internet connection, conference room and audio-visual capabilities for education and training.

“The IPC Hospitalist team approach included daily meetings at 9:00 a.m. attended by all MDs, NPs, a unit-based social worker, a care manager and a nursing team leader to discuss patients and any handoff issues that need review. “At this meeting we redistribute patients so the team has an idea of who’s to be discharged, and get the patients ready for discharge early. This has helped improve team dynamics and

chemistry.” In addition we arranged twice-weekly hospitalist-led multi-disciplinary meetings to discuss discharge planning, patient satisfaction, outcomes data and other quality measures,” says Dr. Vaidyan.

Recently, the unit introduced twice-weekly “walking” multidisciplinary meetings. Occasionally the entire team will enter a patient’s room to jointly exchange information with patients and their families, and discuss discharge plans and follow-up care.

Inviting nurses and various hospital leaders to the weekly hospitalist meeting promotes not only improved patient safety and quality of care, but also satisfaction with the hospitalist staff. Hospital executives are encouraged to join in these meetings to enhance physician-hospital collaboration. “A hospitalist should be the driver of all the many facets of the health care delivery process. IPC hospitalists are heavily involved with a wide range of hospital activities and aligned with the hospital’s goals to deliver better patient care,” said Dr. Vaidyan.

#### **Improved post-discharge follow-up**

With the help of IPC-Link®, a proprietary clinical communications technology developed by IPC specifically for the specialty, the hospitalists carry out a safe and effective transition of discharged patients to the PCPs. At admission and discharge hospitalists enter patient data through a virtual office portal. Within an average of 21 minutes after discharge, the primary care physician and any specialists on the case automatically receive a fax alerting them of patient status, discharge diagnoses, medication list, and follow-up needs.

Within 48-72 hours after discharge, the IPC Discharge Call Center contacts patients, using a “smart survey” based on the patient’s hospital experience. If a patient was discharged on an anti-coagulant, for instance, the survey would include a question about the patient’s knowledge of the need for close monitoring to avoid complications.

If a patient reports an unexpected outcome, the nurse case manager on the call is prompted to intervene right away. The survey and any recommendations from the nurses are immediately faxed to the same healthcare partners who received the discharge notes so all key team members are kept fully informed in real time.

## Results

“The hospitalist program and the designated hospitalist unit are now being viewed as best-practice models by our local network and Dr. Vaidyan is now viewed as the network’s subject expert in the area of hospital medicine and physician patient care,” says Dr. Gardner.

Now in its second year of operation with eight hospitalists and four nurse practitioners, the unit has significantly improved hospitalist-directed patient care across several key metrics that are regularly shared with hospital administration. Dr. Vaidyan says, “We’re there all the time and we have a sense of what’s working, what’s not. We bring that to the administration, who really appreciates getting that information.”

“The hospitalists have become leaders in the hospital, involved on every level,” said Stephen Kelly, M.D., Vice President, Chief Medical Officer. “Bolstered by their regular meetings and effective communication with hospital executives, the hospital-hospitalist alignment is strong.”

The hospitalist unit has been a catalyst for significant quality improvement, as indicated by the following metrics:

- **Significant decrease in 30-day readmission rates.** In January 2010 the average 30-day readmission rate was 11.5%, down from 14% in June 2008, the program’s first month. This represents a 22% reduction since the start of the program. In the same time period on St. Mary’s 3 East Wing, a non-hospitalist unit without the intervention, readmission rates went from 19% to 18%, a change of 5%. (Figure 1-linear graph)
- **Improved patient satisfaction.** In January 2010, 55.9 % of patients responding to the HCAHPS survey checked the “top box” to reflect the highest overall patient satisfaction rating possible. In June 2008 it was 41%. This represents a 36 % improvement in patient satisfaction scores since the program’s first month in operation. During that same period the non-hospitalist unit went from 41% to 49 % representing a 20 % improvement. (Figure 2-linear graph)
- **Decreased length of stay (LOS).** In January 2010, the average LOS was 4.45 days vs. 4.6 days in June 2008—a 4% reduction. In the same time period there was a 2% reduction in LOS for the non-hospitalist unit. (Figure 3-linear graph)
- **Reductions in cost per case.** Dr. Gardner says, “One of Dr. Vaidyan’s major contributions to cost saving relates to much earlier initiation of active management of medical problems by extending the hours of effective hospitalist coverage on our non-teaching service (representing 75% of our beds) from 9 hours per day to 17 hours per day, and by beginning evening patient management in our ER.”
- **Improved transition of care.** The hospitalist team’s championing and implementation of Project BOOST, preventing discharge medication errors, assuring medical follow-up, and thus, preventing readmissions, have served to improve safety for St. Mary’s inpatients. Sponsored by the Society of Hospital Medicine, Project BOOST (Better Outcomes for Older Adults through Safe Transitions) is a national quality improvement project focused on key outcomes such as improved transition of care. St. Mary’s is one of 28 sites in the U.S. participating in the program.
- **Improved clinical outcomes.** The hospitalist team has played a critical role in allowing St. Mary’s Diabetologist to successfully implement a dramatic improvement in glycemic control in the ICU and on the hospitalist floor. Average blood glucose among diabetics admitted to the ICUs, for example, improved from the 180’s to the 160’s “Our hospitalist-diabetologist interaction over the last three years has led to a culture change in our approach to inpatient glycemic management,” says Dr. Vaidyan.
- **Improved education program.** The beauty of St. Mary’s commercial-academic hybrid hospitalist model is that it improves not only quality of patient care, but also the caliber of medical resident education. IPC hospitalists, who include several academic hospitalists, are the main inpatient teachers for the internal medicine residency program, which currently includes 28 medical residents. Medical students from St.

Louis University School of Medicine doing rotations at St. Mary's are also part of the team.

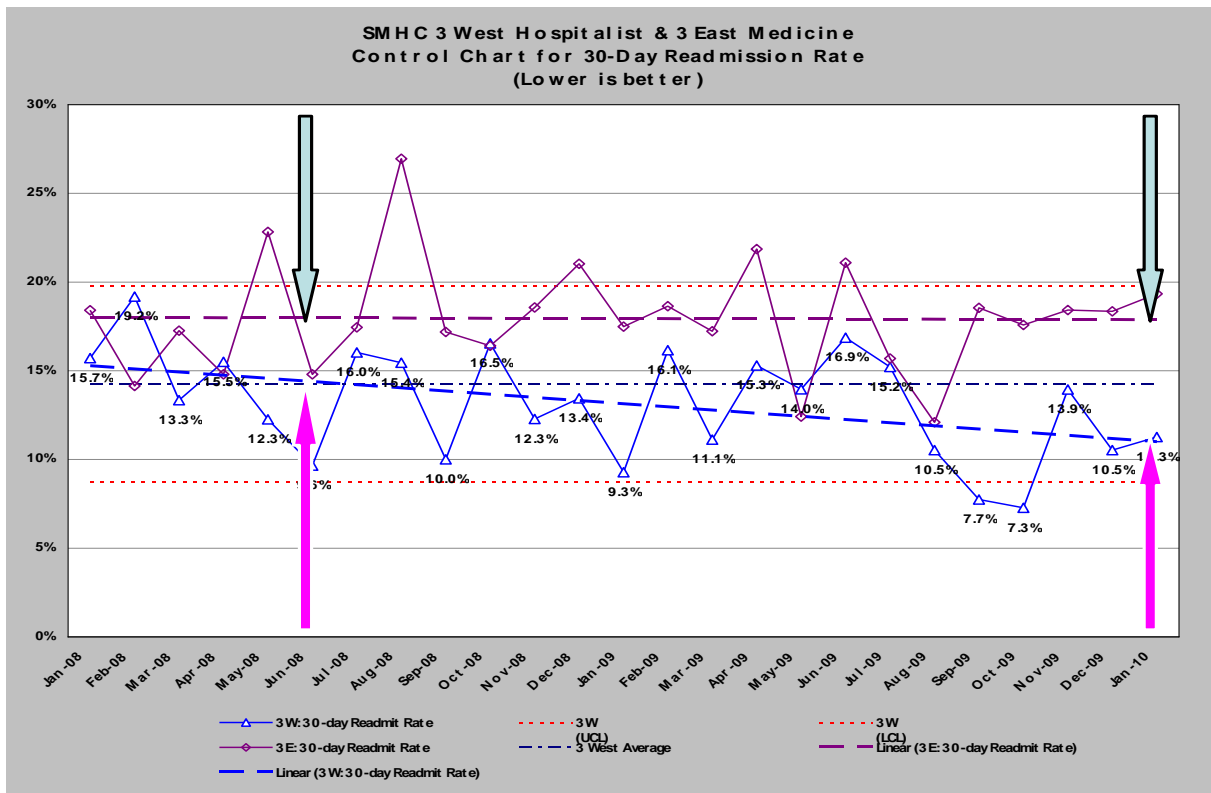
“Dr. Vaidyan delivers our hospital medicine core curriculum lectures, writes our hospital medicine curriculum, and together with other designated faculty, who are members of his hospitalist group, teach our residents on the floors, serve as mentors, and participate in advising, evaluating, and recruiting our residents,” says Dr. Gardner. Dr. Vaidyan won the coveted “Teacher of the

Year Award” given by the Internal Medicine house staff to the faculty member who contributed the most to their clinical education.

William Jennings, President SSM St. Mary's Health Center, Service Line Executive for Heart and Vascular Services, adds, “This commercial-academic hybrid model is a unique hospitalist model that has helped—and will continue to help—St. Mary's accomplish both its clinical and teaching goals. I don't think there is a similar one anywhere else.”

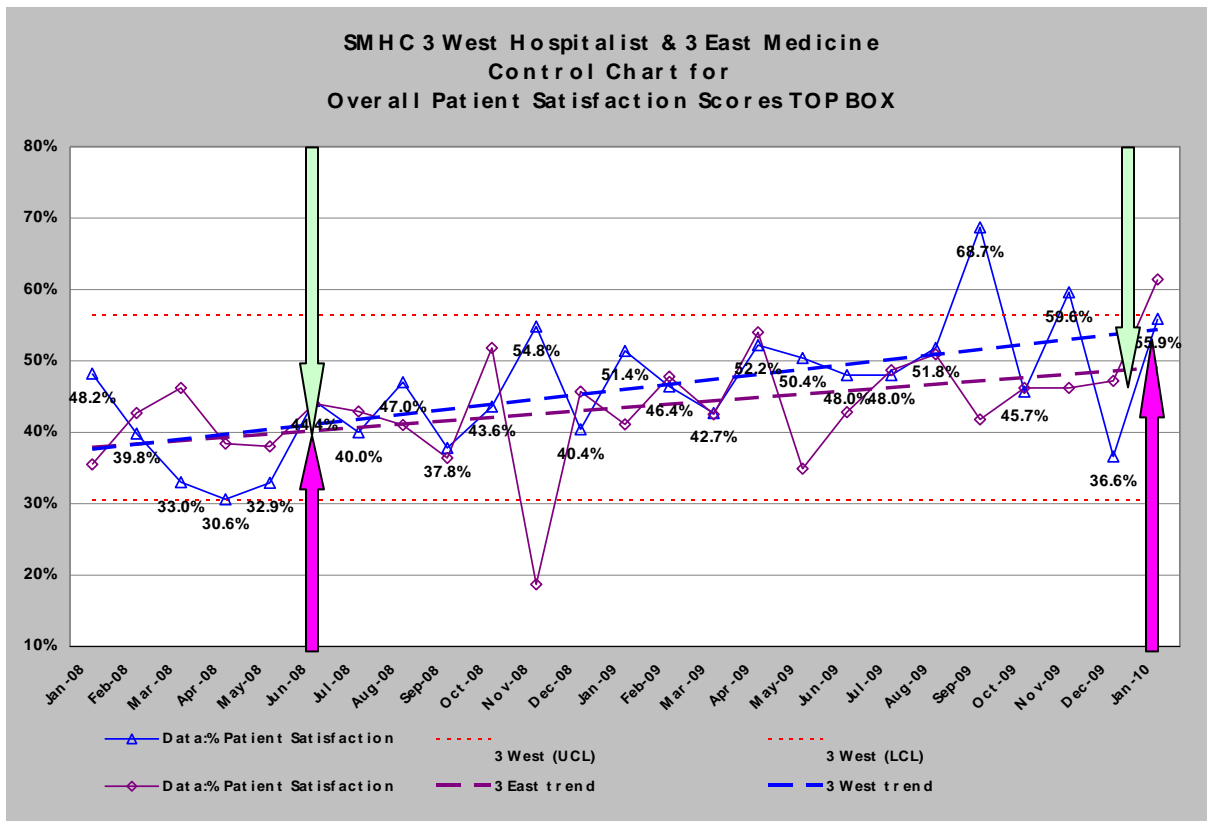
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Figure 1: Decreased readmission rate. Control Hospitalist (West Wing) vs. Non-hospitalist (East Wing)



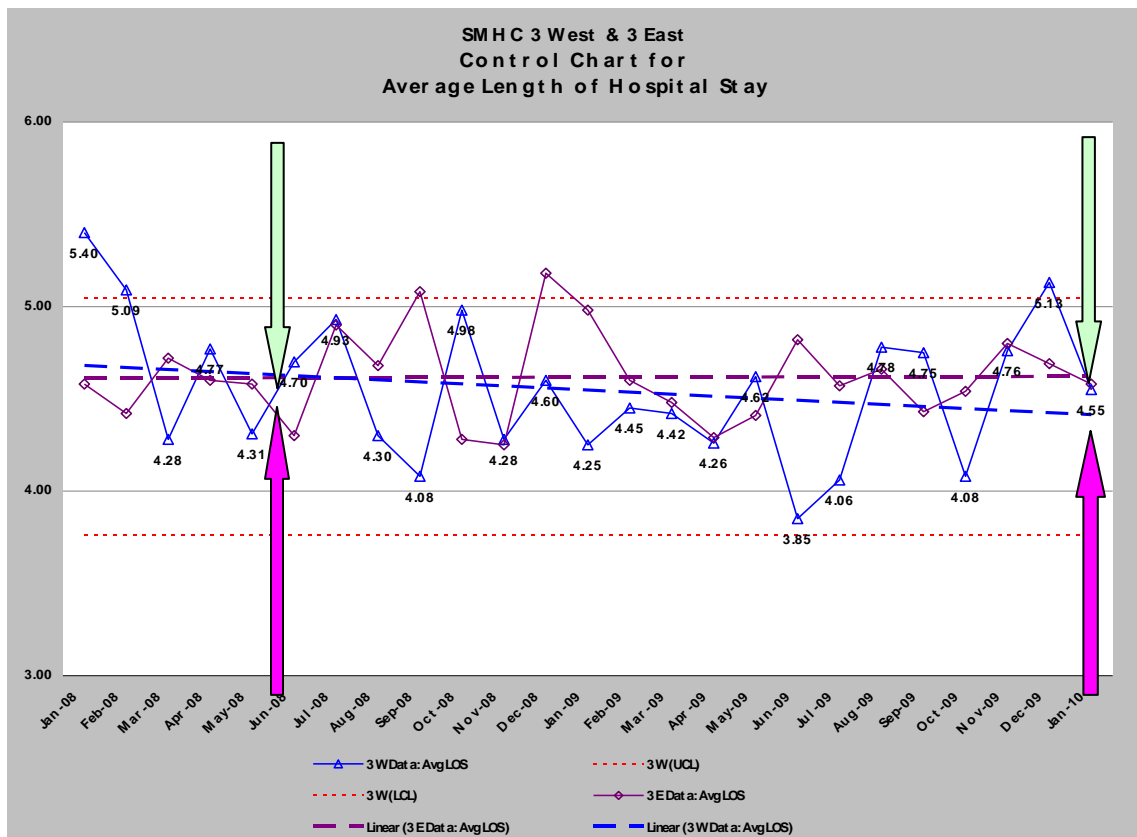
Source: St. Mary's Health Center data, February 2010

Figure 2: Improved patient satisfaction. Control Hospitalist (West Wing) vs. Non-hospitalist (East Wing)



Source: St. Mary's Health Center data, February 2010

Figure 3: Decreased length of stay. Control Hospitalist (West Wing) vs. Non-hospitalist (East Wing)



Source: St. Mary's Health Center data, February 2010



*The Hospitalist Company*



IPC The Hospitalist Company, Inc. • 4605 Lankershim Blvd., Suite 617 • North Hollywood CA 91602  
Main Phone: (888) 447-2362 • Main Fax: (818) 766-3999 • General Email: [information@ipcm.com](mailto:information@ipcm.com)