Toward Electronic Patient Management

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The Future - Electronic Patient Management

The Foundation -- Electronic Patient Records

Our Experience with *NextGen* Applications
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by

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Yesterday

- **Southeast Texas Medical Associates, LLP (SETMA) was formed in 1995 by the merging of Four independent, solo practices of Family Physicians and Internists**

  - Two practices transcribed medical records and two had hand-written medical records
  - Three practices organized records alphabetically and one numerically
  - One practice used an antiquated computer management system; the other three used peg board

Problem

After two years, it was apparent that the complexities of a multiple specialty practice were beyond a paper-based system and the practice management computer system we had inherited from one of our partners.

Additional Complications

1.   Four providers had grown to eight (currently 29)

2.   Additional services had been added:
    a.   A level-two, moderately-complex reference laboratory had been added to the practice
    b.   Physical therapy had been added
    c.   A Medicare + Choice home health agency had been added
    d.   A Hospice had been added

Complications Cont'd

3. A large hospital practice added complexity to continuity of care and to data-base access simultaneously at multiple locations

4. A large long-term residential-care practice added new challenges for transition of care between out-patient, in-patient, nursing home, etc

5. The nature of our practice made management of medications, telephone access and provider-to-provider communications critical

6. Involvement with emerging managed care both from a provider standpoint and as Medical Director of a 450 physician IPA demanded electronic management of data

The Fifth Discipline

- A book, which has influenced everything we do at Southeast Texas Medical Associates, LLP, is Dr. Peter Senge's *The Fifth Discipline*, in which he declares, "The more complex a problem, the more systemic the solution must be." Senge has reference to "systems thinking," which is a way of organizing analysis of complex problems in business enterprise.

System thinking is needed because for the first time humankind has the:

- Capacity to create far more information than anyone can absorb,
- To foster far greater interdependency than anyone can manage
- To accelerate change far faster than anyone's ability to keep pace.
- Complexity can easily undermine confidence and responsibility and systems thinking is the antidote to this sense of helplessness that many feel as we enter the 'age of interdependence.'

SETMA Adopted Senge's Ideas

- SETMA has applied Dr. Senge's ideas to the private practice of medicine because the practice of medicine and healthcare delivery are so complicated today they require systems solutions. And, the only solution to the issues facing Southeast Texas in healthcare delivery is "systems thinking" and "systems solution."

Systems thinking is:

- A discipline of seeing wholes
- A framework for seeing interrelationships rather than things
- For seeing patterns of change rather than static 'snapshots.'
- A set of general principles spanning fields as divers as the physical and social sciences, engineering, and management.

Transactional and Static Medical Records

- 19th and 20th Century medical records, except for research programs, were essentially **transactionally** driven.
- **When a patient "showed up" a record of the transaction between the provider and the patient was made**. And, that recorded remain in the providers office unless it was physically transported somewhere else.
- FAX machines allow us to provide "real time" access to records from remote sites, but that access remained static. There was no dynamic interaction with the patient's record anywhere.

21st Century Change

Providers are going to:

- Think about his/her patients when they don't show up.
- Interact with their patients in a real-time continuum of care model of healthcare delivery. Which is responsible for both quality and cost.
- Not only have to think about their patients when they are not "there," they are going to have to think about them as:

  a person,
  a population,
  a problem (disease state), and
  a preventive healthcare opportunity.

Accessibility

This kind of strategic thinking about our patients when they are not in our office or on our phone will require: **Systems** which provide **Data** over time and which is a**ccessible** at every point of a patient's interface with the health care delivery network.

Therefore:

In March of 1998, SETMA, purchased both the electronic medical record and the enterprise practice management applications from *NextGen*.

Why *NextGen*?

1. The financial stability of the company.

2. The vision and the accessibility of the management of the company.

3. The flexibility of the *NextGen* applications.

4. The ability of the applications to address SETMA's management and patient-care concerns.

5. The continuing growth and development of the software applications and the commitment of **NextGen** to expand their capabilities in response to industry and client needs.

Today

SETMA is a growing multi-specialty clinic with 29 providers including:

- Nurse Practitioners
- Internal Medicine
- Family Practice
- Pediatrics
- Pulmonology
- Critical Care
- General Surgery
- Urology
- Rheumatology

Criticism

- Being the first users of electronic patient records in our region, many criticized the financial investment and the energy expenditure required to transition from a conventional paper-based record to an electronic medical record.

- Today no one is criticizing; a number are trying to emulate.

Return on Investment

- Financially, the transition to electronic patient records has been an unqualified success.

- The following results were compiled by an independent consultant hired to evaluate the "Return on Investment" SETMA has realized from the investment made in a systems approach to healthcare delivery.

Patient Volume

After 90 days, the average number of patient visits per physician remained the same after the installation of *NextGen.*

Transcription

- The *NextGen* application helped cut Medical Transcription costs from $5.93 per visit in 2000 to an average of $0.25 per visit in 2001.

- Based on the number of visits in 2001, SETMA saved more than $340,000.

E & M Coding

- The *NextGen* application helped improved E&M coding and thus, increased average billable charges for office visits by 4.23%.

- These coding improvements added more than $150,000 in billable charges.

Charges Per Patient

- After installation of the *NextGen* application, coding and charge capture improved.

Staff

- Through the creation of an Electronic Patient Record, the number of administrative staff required to handle patient charts decreased by 76.7% ($2.65 per visit down to $0.62).

- The new procedure saved the clinic more than $120,000 per year in administrative costs.

Supplies

- The average cost for administrative supplies decreased from an average of $8.00 per patient to $0.97, a decrease of more than 87%.

- Based on the number of actual patients (55,000), the practice saved more than $380,000 in paper and supply costs.

Charts

The average man-hour cost to establish a chart decreased 85% from 8.0 minutes per new chart to 1.2 minutes, an annual savings of more than $22,000.

Phone Calls

- The amount of time required to handle phone call inquiries that required the chart has been reduced by 73%.   The number of tasks decreased from 18 down to 2.

- Total annual savings exceed $103,000.

Claims

- Because of better charting, the number of claim denials decreased 26%.

- This reduced days in accounts receivables by 7 days, thus increasing actual revenues by $102,000.

Audits

With improved charting and documentation, the number of successful audits has improved and in the last year the clinic has received a perfect score on all of their HEDIS audits and recently received a "no deficiencies" in a total practice audit by Blue Cross/Blue Shield.

Eliminating No Shows

- Electronically calling our patients each day to remind them of their appointments has

  decreased our "no shows" by 65%.

- This has resulted in an 8% increase in number of daily visits without increasing practice size.

More Than
A Transcription Service

- These tangible, financial benefits, do not represent the most significant results of SETMA's implementation of *NextGen.*

- To be "worth it," EMR had to be more than a transcription service, -- the EMR had to provide more value and benefit than simply documenting a patient encounter electronically.

Electronic Patient Management

- This realization grew into a vision of *NextGen's* electronic patient records becoming a tool for electronic patient management.

- *NextGen's* "**Work Flow Module,"** which interfaces patient appointments, telephone messages, laboratory results and e-mail, facilitated our development of electronic patient management, resulting in:

Hospital Connectivity

- Development of connectivity with hospitals in our community. Admission H&Ps and Discharge Summaries are documented in the EMR on over 250 admissions per month.

- This allows for a seamless continuum of care whether the patient is at home, in the office, on the phone, in the nursing home, hospital, hospice, home health, physical therapy, or sending an e-mail.

Phone Calls

The documentation for the past two years of **EVERY** telephone call which has come into our practice, twenty-four hours a day, seven days a week, with a computer generated time and date stamp and documentation of who called and why.

Quality of Care/Quality of Life

- The employment of two CFNPs who work from 10:00 PM to 9:00 AM seven days a week:

  1. Seeing our patients in the hospital and ER
  2. Working up admissions, documenting H&Ps in the EMR
  3. Responding to telephone calls

- This has improved:

  1. The quality of care for our patients and
  2. The quality of life for our providers.

Hospital Management

Completing the hospital discharge summary on *NextGen* templates makes that data instantly available to:

1. Providers
2. The clinic
3. The nursing home
4. The IPA
5. The home health agency
6. Other members of the healthcare team

Tickler File

- Utilizing the interface with Microsoft Outlook provided by *NextGen*, we remind ourselves of needed medical or diagnostic issues in the future.

- This has been particularly helpful in behavior modification, as it has allowed us to be reminded to call our patients and to make sure they have quit smoking, etc.

Chronic-Conditions Management

- The identification of patients who need extra management allows us to call them on Thursday to make sure they are taking their medications and are doing well for the weekend. If they are not, they are given an appointment for Friday.

- They are also called on Monday to see how they did over the weekend. If they are not doing well, they are given an appointment immediately.

Integrated Delivery: IPA and Private Practice

As a partner in an IPA and in a PSO, SETMA shares a CMS fiduciary responsibility to complete a Health and Wellness Questionnaire on every patient who joins one of the health plans offered by our PSO.

From this questionnaire a "Health Risk Assessment" is generated which allows us to predict which patients need immediate attention.

Integrated Delivery:
IPA and Private Practice Cont.

- Through electronic patient management, SETMA has been able to allow our IPA to make appointments for patients who are at risk.

- This saves us time and it improves the quality of care received by our patients.

- Reducing the HRA to an electronic computation through *NextGen* makes it a very useable tool for patient management.

Electronic Practice Management

With multiple locations, and plans for another major expansion, the creation of a "medical team" requires communication:

1. For quality improvement
2. For patient management
3. For clinic management
4. For utilization management

which are only possible with electronic patient management through EMR, e-mail and office intranet.

Creation of a Healthcare Team

The creation of a "healthcare team" with a common culture, purposes and goals, when providers do not have daily contact, is only possible with electronic communication and interaction.

Clinic and Physical Therapy

The creation of templates for physical therapy to utilize *NextGen* allows providers and therapist to communicate seamlessly to improve the quality of care while controlling excessive utilization.

Laboratory Results & CMS Compliance

The documentation that laboratory results have been reviewed electronically and the initiation of follow-up instructions electronically have improved quality of care and have provided a valuable tool for SETMA providers to remain in compliance with CMS requirements.

Treatment Pathways & National Standards of Care

The ability to create treatment pathways based on national standards of care, particularly in regard to:

- Chronic Stable Angina
- Diabetes
- Congestive Heart Failure
- COPD
- Coumadin Therapy
- Cholesterol and Triglyceride treatment

have proved the clinical value of electronic patient management.

Provider Evaluation

- With a growing multi-specialty, multiple-site practice, electronic patient management has provided a vehicle for the evaluation of provider performance.

- The establishment of quality standards and benchmarks of care are easy to monitor and to correct deficient behavior.

Preventive Health Initiatives

The consistent providing of preventive health care, and the review of preventive care deficiencies, every time the patient is in the clinic is only possible in an electronic environment.

21st Century Dynamic: Thinking About Patients Not in the Clinic

- EMR allows for the management of patients as a class, whether it is with a drug withdrawal or the evaluation of a standards of care initiative.

- The ability to think about the patient as a person, a problem and a preventive health strategy is critical to the dynamic of 21st Century medicine.

Empowering the Team

- EMR has made it possible for all clinical personnel to be involved in patient care, whether at entry, evaluation, treatment or follow-up.

- Employee satisfaction has never been at a higher level.

- The sense of team work and collegiality permeates the clinic and is attributable to the fact that the EMR gives everyone the ability to contribute.

Patient Access Expanded

- An interactive website where our patients can:
  - Request
    - appointments
    - Referrals
    - medication refills
  - Interact with their provider via e-mail
  - Complete questionnaires about healthcare concerns

- This has added value for our patients who want more access to their provider than at any time in the history of medicine.

Le Maladie Du Petite Papier

- When I started medical school, one neurotic condition was called, *Le Maladie Du Petite Papier*, "the sickness of the small piece of paper."

- Health care has changed. We now want our patients to write down their symptoms and we want them to communicate those symptoms to us in "real time."

- E-mail is a great way to do this and *NextGen* gives us the ability to store those e-mails and our responses in the patient's chart.

- I tell my patients, "I can read faster than you can talk."

Electronic Patient Management Via *NextGen*: A Huge Success

With the benefit of SETMA's financial results and the improvement in patient care via *NextGen's* electronic patient records morphed into electronic patient management, SETMA's transition from a paper-bound medical record to an electronic record has been a huge success.

Expectations: Patients

- **SETMA's patients** now expect to have a record, which is complete, accurate and accessible.

- Their expectations are such that quality care for them begins with the capturing of precise and accurate data about their healthcare events whether in the clinic, on the telephone or in the hospital.

Expectations: Provider

SETMA's healthcare providers now expect to challenge every patient with preventive healthcare issues, many of which are irrelevant to the event which precipitated the current encounter, but each of which addresses long-term health needs of every patient.

Expectations: Customers

SETMA's customers, the payers, who pay our charges, expect the kind of documentation which gives them the ability to properly access the quality of care and appropriateness of care which their membership is receiving from SETMA providers.

Having to Succeed

- The selling of a systems approach to healthcare delivery encouraged each participant in the healthcare process to "buy in" and it put SETMA in the position of "having to" succeed.

- Once we announced that we were going to do CPR, and once we "bragged" on what it would accomplish, we had no choice but to succeed.

Forcing Success: Cortez and His Ships

- Selling the CPR is not unlike the Spanish Explorer, Hernan Cortez who arrived on the Yucatan peninsula in the year 1519.

- Cortez insured the success of his mission by making it impossible for his troops to retreat. He burned the ships.

- In many ways, the "selling of the CPR" is like that. It makes going back impossible and makes going forward to success the only alternative.

The Cortez Analogy

An attorney, speaking of the Cortez story, wrote me and said:

"I have always loved that analogy. I was wondering if other doctors realize the implications of what SETMA has done. By showing that it is technologically attainable to have a paperless office, with electronic safeguards against giving contraindicated medicines and losing or misplacing files, you have in essence raised the standard. Doctors with paper files can no longer claim to be acting prudently, when information is missed due to legibility or misplacement of paperwork, since there is an available cost-effective alternative.

Dupont: The Standard

The attorney continued:

"As an example, plaintiff lawyers typically compare a company with an unsafe working condition to DuPont, which has some outstanding safety procedures and a good record, to the chagrin of other industry. SETMA may find itself being the 'DuPont' of med/mal cases in the future. You have burned your ship, but **I wonder if your colleagues realize that their sails are on fire as well**?"

Burning Ships and Notes

Four years ago, SETMA burned her ships and set out on an adventure of electronic patient management. Two weeks ago, SETMA burned the note which represented the initial cost of electronic medical records.

Fahrenheit 451 Project

- Everyday, SETMA continues its "Fahrenheit 451 Project".

- While we did not literally burn our ships or paper, but we do continue to find ways to eliminate the use of paper in every aspect of our practice.

- Each piece of eliminated paper represents an increase in efficiency, excellence and economy.

The Future and Its Foundation

- The Future -- Electronic Patient Management

- The Foundation -- Electronic Patient Records

- We're glad we started. We've never had more fun practicing medicine and we've never provided the quality of care which our patients are experiencing in our clinics today. **NextGen** has been a great tool, a great partner and a great vehicle for our progress.