

Using Information Technologies in a Family Practice office

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Using Information Technologies in a Family Practice office

Overview

Challenges to PCP practices

Responses to these challenges

Our own experience

Conclusions

Overview: environment

- Saturated managed care market
- Managed care is implemented via “fully delegated model” through large, regional IPAs
- Need to view managed care as a central method of business, not as a “loss leader”

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Overview: Hayward Family Care

- Group practice: 3 MDs, 3 mid-level practitioners
- Responsible for care of around 6,000 active patients
- Local computer network of 11 workstations:
 - 1 on each provider's desk
 - 1 on business mgr's desk
 - 1 at each nursing station
 - 1 in lab
 - 2 at front office
- DSL access allows all machines always-on internet connectivity

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Challenges to PCP practices

- Increased operational efficiency is needed
- Larger patient volumes being experienced
- Practice financial margins are slim — staff expansion to do more paperwork using older methodologies is detrimental

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Challenges to PCP practices

- Increased accountability to numerous parties is demanded
- Medical records must withstand auditing and review
- Financial transactions are complex, with multiple differing relationships
 - Office to patient
 - Office to IPA (or medical group)
 - Office to direct payors

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Challenges to PCP practices

- Increased accountability to numerous parties is demanded
- Coordination of care in a networked environment must be managed – PCPs must be effective “orchestra conductors”
 - Referrals and authorizations
 - Delivering information to and obtaining feedback from affiliated specialists

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Challenges to PCP practices

- Demonstration of improving population-based outcomes is being expected
- New paradigm for health care:
 - Management of whole populations around specific disease states (e.g. diabetes) by measuring outcomes, enacting programs that will affect those measured outcomes, and following the results as the programs are rolled out
 - This replaces the traditional sequential one-at-a-time doctor-patient visit model

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Challenges to PCP practices

- Demonstration of improving population-based outcomes is being expected
- Population management requires much better data-gathering sophistication than traditionally within the reach of individual practitioners
- Studies based on traditional chart review are absolutely unfeasible

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Responses to challenges

- Primary care practices must develop improved IT capabilities, and migrate from a manual paper-oriented environment to a digital, interconnected one
- This is not a luxury. It is a necessary survival strategy

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Responses to challenges

- How to accomplish this transition

- Need IT physician champions in the practice
- Need sufficient practice size to afford equipment and software. (However, even small solo practices will have to adopt some of these methods)
- Best to migrate incrementally to a fully digital environment

Best customization, “ownership” of new methods

More affordable in a slim-margin business

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Our own experience

- Recognize data already in place from Practice Mgmt (PM) software

Demographics tables

Claims/activities tables

- Once data from PM software could be examined directly, then numerous reports could be made

Flu reminder cards

Osteoporosis screening outreach

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Our own experience

- Additional external data tables were added and linked

- Lab data

- Immunization data

- Osteoporosis screening steps

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Our own experience

- Transcripts then added

- Archive of word-processor documents already existed

- Transcriptionist

- Speech-recognition software

Linking these transcripts to the demographics table was a huge step in creating the central “skeleton” of a fully computerized medical record

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Our own experience

- Useful clinical reports could now be generated:
 - Immunization compliance reports
 - Diabetes glycohemoglobin reports
 - High-risk patient LDL cholesterol reports
- These reports allow clinicians to focus on real population mgmt

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Glycohemoglobin trends of diabetic patients

Hayward Family Care

1	AB ***** MRN: 743	A ***** 22345 S. G***** A** Hayward CA 94541	1/25/1929 70yrs Fin class: M3	Phone: (510) ***-**** MEDICARE - MEDICAL
		6/11/98 GLYCOHEMOGLOBIN (HBA1C) 8.4		
		9/14/98 GLYCOHEMOGLOBIN (HBA1C) 7.7		
		12/7/98 GLYCOHEMOGLOBIN (HBA1C) 7.7		
		1/28/99 GLYCOHEMOGLOBIN (HBA1C) 6.5		
		4/13/99 GLYCOHEMOGLOBIN (HBA1C) 6.5		
		7/29/99 GLYCOHEMOGLOBIN (HBA1C) 6.5		
2	AB ***** MRN: 1337	J ***** 2561 M***** A** #248 Union City CA 94587	4/25/45 54yrs Fin class: E1	Phone: (510) ***-**** EPO-PHCS
		6/29/98 GLYCOHEMOGLOBIN (HBA1C) 6.6		
		5/12/99 GLYCOHEMOGLOBIN (HBA1C) 7.6		
		9/8/99 GLYCOHEMOGLOBIN (HBA1C) 8.0		
3	AB ***** MRN: 1149	A ***** 27830 L**** C* Hayward CA 94544	5/16/1927 72yrs Fin class: H1	Phone: (510) ***-**** HILL PHYSICIAN
		7/13/98 GLYCOHEMOGLOBIN (HBA1C) 8.2		
		9/14/98 GLYCOHEMOGLOBIN (HBA1C) 7.6		
		10/9/98 GLYCOHEMOGLOBIN (HBA1C) 8.2		
		1/11/99 GLYCOHEMOGLOBIN (HBA1C) 8.1		
		3/23/99 GLYCOHEMOGLOBIN (HBA1C) 7.0		
		7/15/99 GLYCOHEMOGLOBIN (HBA1C) 7.4		
4	AB ***** MRN: 1482	D ***** 4488 L***** C* Fremont CA 94536	12/20/62 36yrs Fin class: H1	Phone: (510) ***-**** HILL PHYSICIAN
		6/18/98 GLYCOHEMOGLOBIN (HBA1C) 11.8		
		5/25/99 GLYCOHEMOGLOBIN (HBA1C) 10.3		

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Our own experience

- Expanding internet connectivity

At first, dial-up was sufficient

Link to Hill Physicians web site to verify eligibility and claim status

Electronic claims submission:

Medicare, Medicaid, others

Hill Physicians via Healtheon link

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Our own experience

- Expanding internet connectivity

Then, we added DSL connection

Now, fast always-on internet access available to all workstations

Providers have PDR on-line on-demand

On-line formularies

All computers can access Hill web site to verify eligibility on-demand

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Our own experience

- Expanding internet connectivity

Then, we added DSL connection . . .

Use of ISP's mail server instead of having to purchase our own in-house mail server saves significant costs

- Can use Outlook to connect workstations in-office

- Can coordinate schedules, posts tasks to front desk, e-mail in-house

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Our own experience

- Expanding internet connectivity

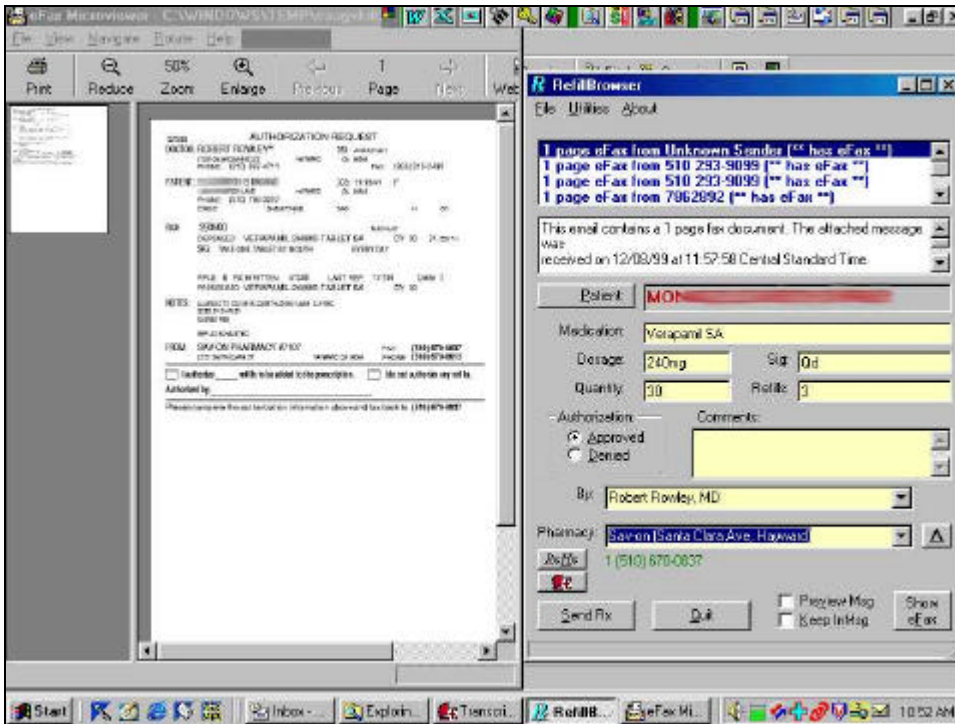
Then, we added DSL connection . . .

Now use eFax to route all our pharmacy refill requests through e-mail

- Example of how new IT can substantially change a major in-office process overnight

- Fax-image archive can be linked to patient record, building a pharmacy-history database in the EMR

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Conclusions

- Implementing information-system technologies is a necessary survival strategy for primary care physicians in the current environment of U.S. health care.

Conclusions

- Internet connectivity can link disparate processes and data sources

Faxes

E-mails

Scanned-in paper documents

Data tables

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Conclusions

- DSL availability is affordable and increasingly being explored by practices

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Conclusions

- Internet tools will first be used to improve how practices currently function

Clinical record-keeping (EMR)

Pharmacy management

Lab result access

- Implemented incrementally

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Conclusions

- Once we view medical practice from this new vantage point, new ways to practice will then be more commonly explored

E-mail with patients

Sharing records with consultants via internet

Tighter coordination of delivery systems in a networked environment (IPAs)

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