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**Case Study**  
**A “Wired” Internist’s**  
**Perspective**  
**Peter Basch, MD**  
**MedStar Health**  
**e-Commerce Leadership Team**



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# **“Why Doctors Hate the Net”**

## **Forrester - 3/2000**



# Everyone Else Loves the Net

**Conferences**

**News/information (if coupled to something else)**

**Transactional portals**

**Billing/claims**

**Rx services**

**Direct sales of non-rx merchandise**

**Data mining**

**Individualized marketing**

**Medicine's second curve**

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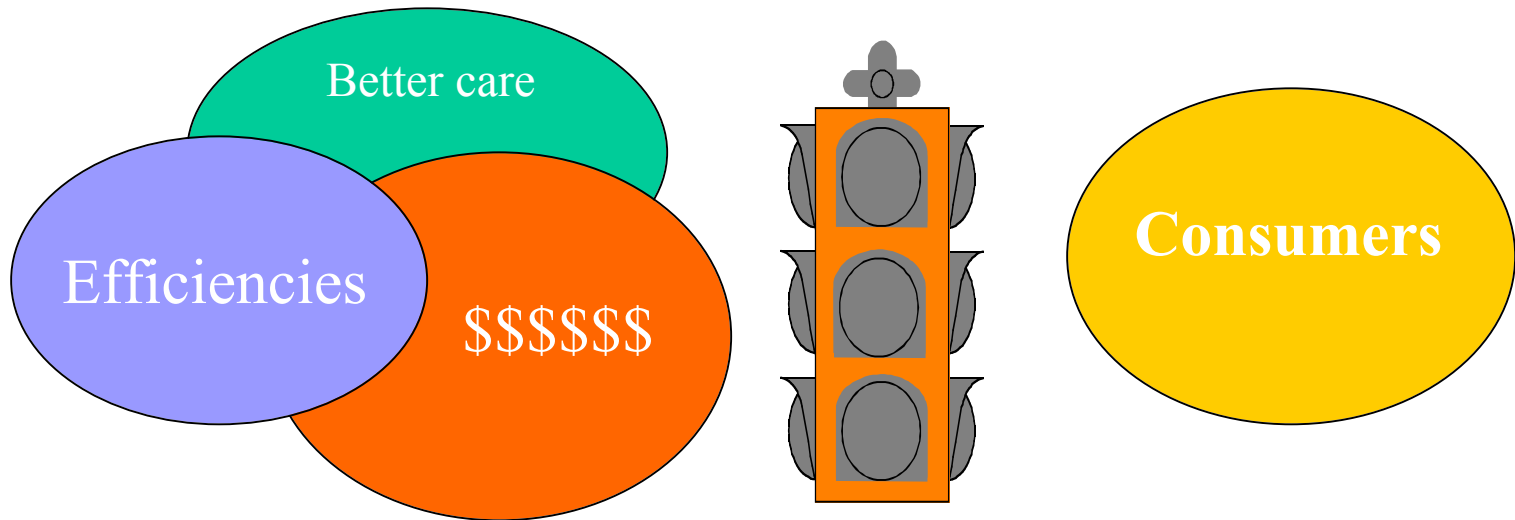
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# Why should you care?





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# Why am I here?

- **Practicing physician**
- **Successfully incorporated EMR and the Internet into daily practice**
- **Among the top 5% in productivity**
- **I love what I do**



# Why should physicians care?

- **We are hurting/hassled**
  - **Decreasing income**
  - **Increasing workload**
  - **Information overload**
- **Loss of professional status**
- **Disintermediated from patients**



# Why are physician's hurting?

- Only ~60% of day is potentially reimbursable
- Demands on non-reimbursable time ↑
- Reimbursements for lab services (formerly 25-30% of an internist's income) mostly gone
- Reimbursements ↓
- Inconsistent, illogical, and constantly changing rules/formularies
- ↑ Criminalization of medicine



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# Essential Physician Tasks

- **Evaluate/document and respond to lab tests**
- **Evaluate/document and respond to imaging studies**
- **Evaluate/document consults**
- **Phone calls - patients, VNA, MDs, hospitals, pharmacists, PBMs**
- **Evaluate prior medical records**
- **See patients**
- **Document patient visits**
- **Generate rxs**
- **Generate referrals**
- **Complete forms**
- **Research patient specific problems**
- **Self education**



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# Reimbursable Physician Tasks



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# Reimbursable Physician Tasks

- Appropriately coded and ~~documented~~ patient visits

**Fraud & Abuse**



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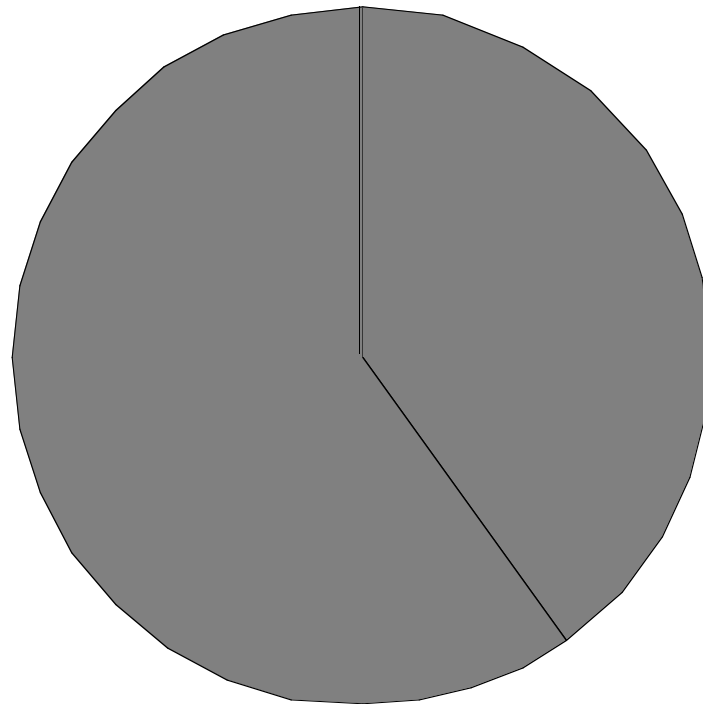
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# Direct patient care/**Nonbillable** (average 10 hour day)





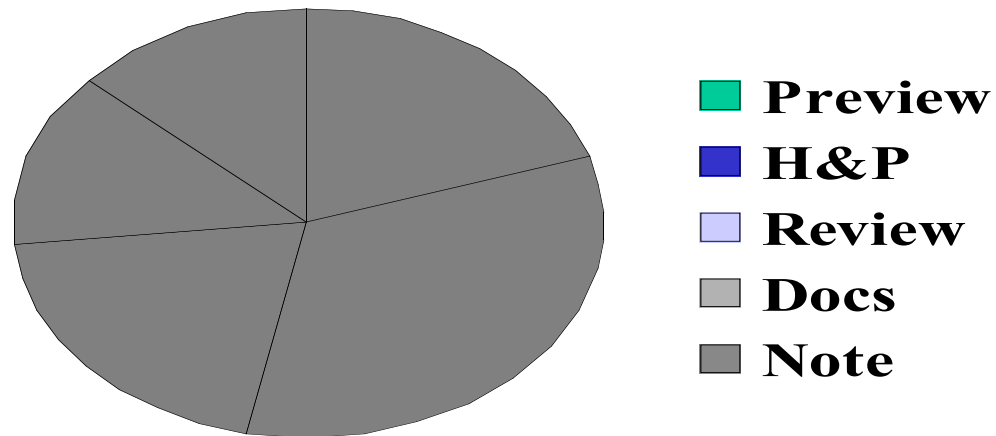
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# Inside the Exam Room



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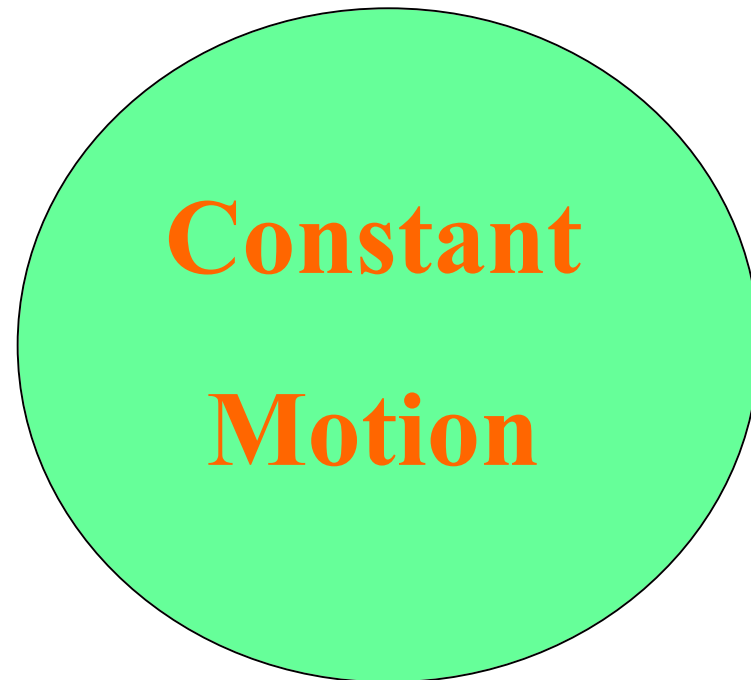
# Direct patient care time - (what happens in those 15 min pt visits)





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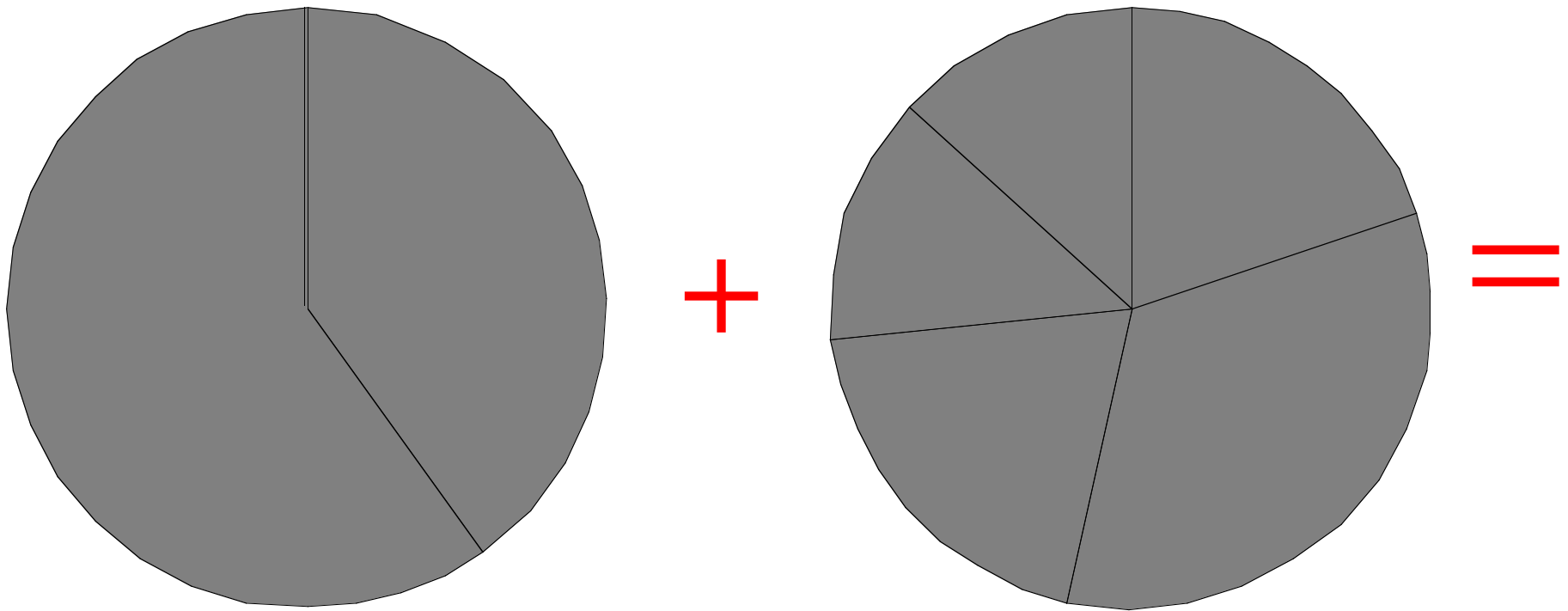
# Time perception - what the physician sees -





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# Time analysis

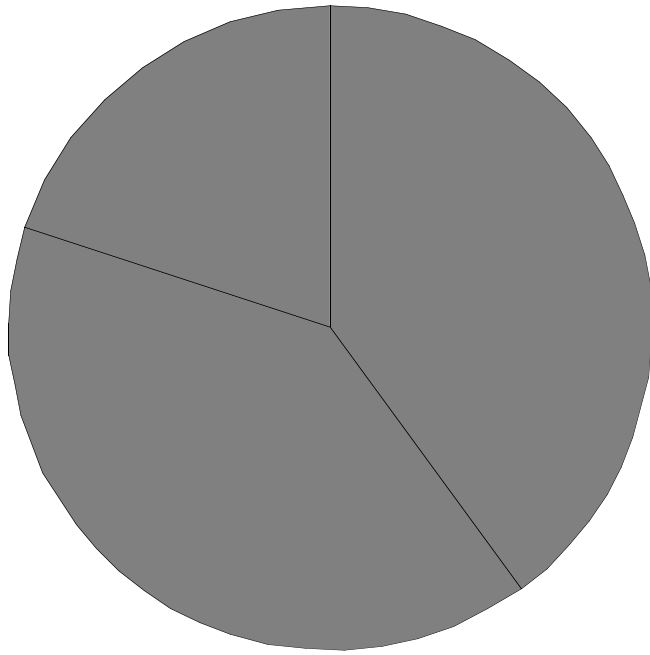




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# Time analysis - drilling down

Face/Other/Nonbillable



- **6/10hrs in direct patient care**
- **2/10hrs in face to face time with patients**
- **Patients don't care about the spinning wheels behind the scenes**



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# How should you address physician's needs?

- **Think physician centric**
- **Think global, present as physician centric**
- **Address workflow and point-of-care**
- **Respect physician attitudes/state of mind**
- **Must not “add one more thing”**



# How I address physician's needs?

- **E-healthcare = “one less thing”**
- **Built up “from the bedside”**
- **↑ efficiency/productivity/revenue**
- **↑ quality/access/convenience & ↓ errors**
- **Address/explain technology**
  - neutral
  - disruptive
  - facilitative



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# **Principle of task consolidation/distribution**



# Example of prescriptions

- **Paper workflow**

- in addition to making correct dx and treatment plan:
- check record for prior use/appropriateness of meds
- check formulary
- check PDR for info
- check PDR on other meds for interactions
- write rx
- write rx in med list
- write rx in visit note
- pharmacy callback
- med recall
- med stats/outcome

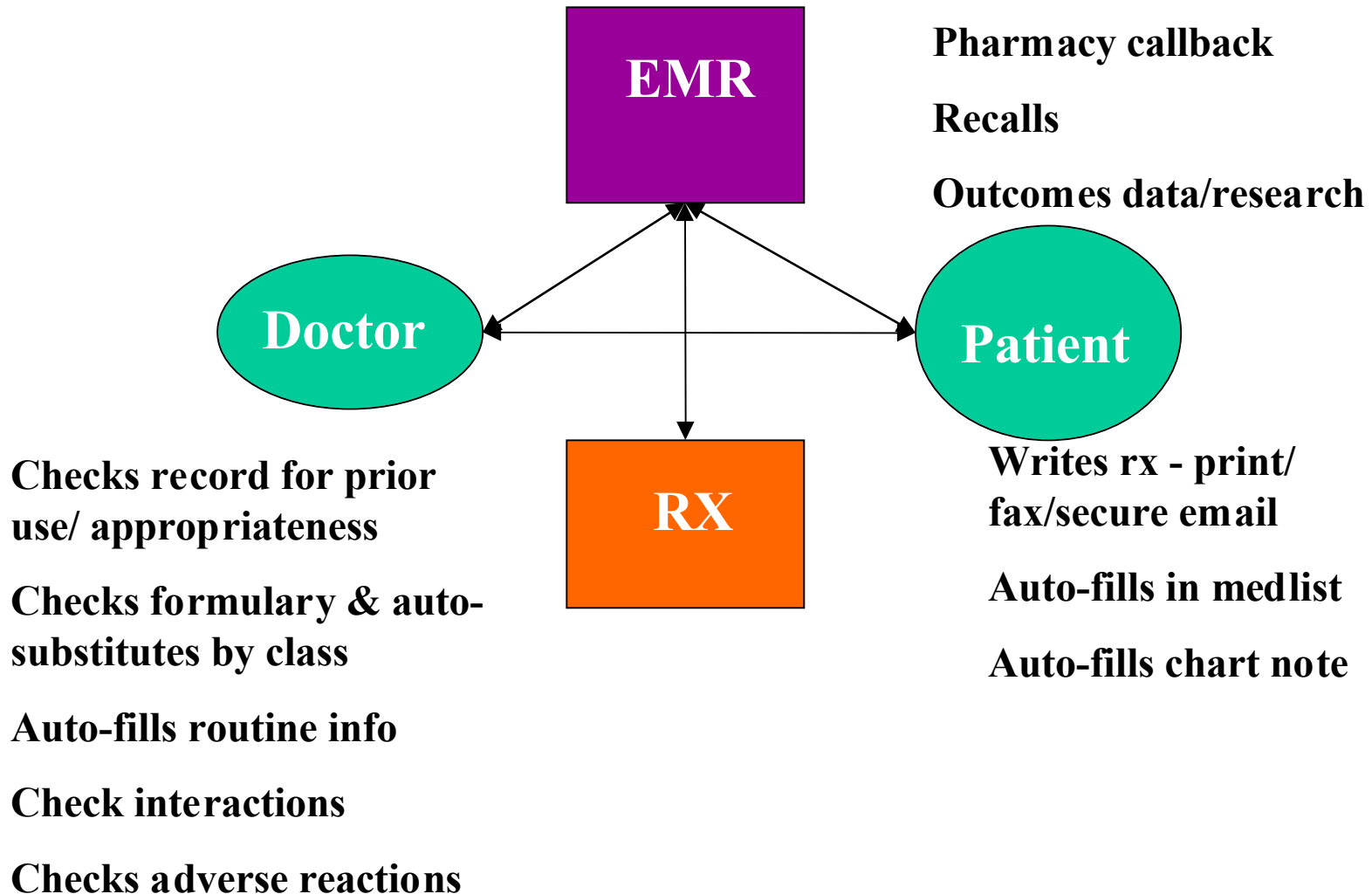
- **Ideal workflow**

- write rx in exam room



# Example of prescriptions

## Consolidation/Distribution of workflow





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## **Sales call #1**

**“Would you buy an electronic  
prescribing tool from this man?”**



# Problem/Solution - electronic rxs

- **The pitch - easier than calling PBMs, ↑ patient convenience**
- **My counter - I don't call PBMs, wrong solution for wrong problem**
- **My problem - medical assistants spends 4-6 hours/day phoning in acute care rxs (to local pharmacies), with >1hr/d on hold**
- **His response - a mechanism for generating electronic rxs to pharmacy; service will improve/expand once pharmacies accept digital signatures**
- **The actual workflow today**
  - not directly from patient record
  - only for limited mail order pharmacies
  - pharmacy callback and verification procedure required
- **“Did I mention that we get paid per transaction by the pharmacy?”**



# **How stupid am I? - electronic rxs**

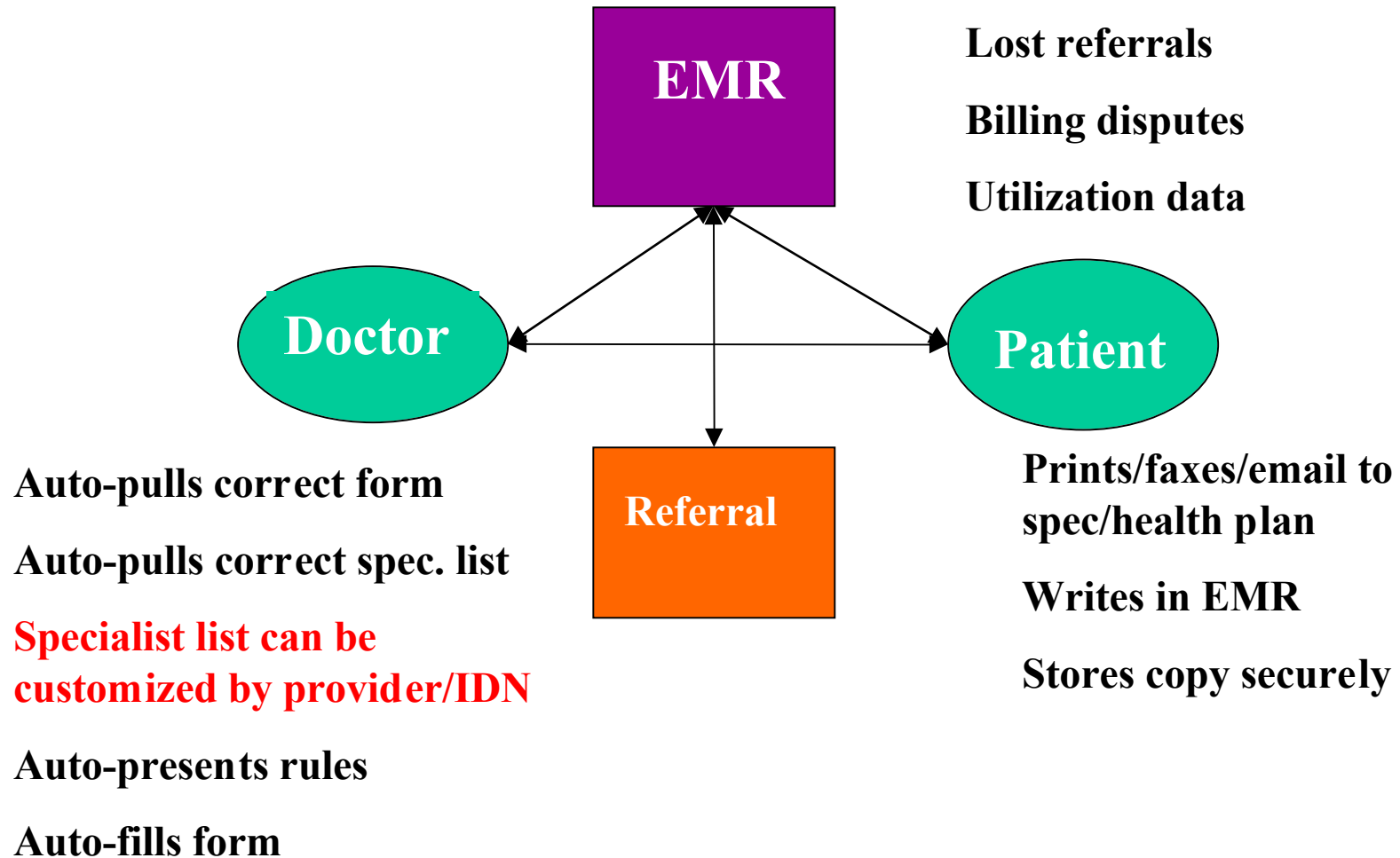
- **Questionable benefit to patient**
- **Does not solve my problem**
- **Adds to my workload**
- **Adds to my staffs' workload**
- **Makes money per transaction for vendor**

**I am supposed to pay for this???**



# Example of referrals

## Consolidation/Distribution of workflow





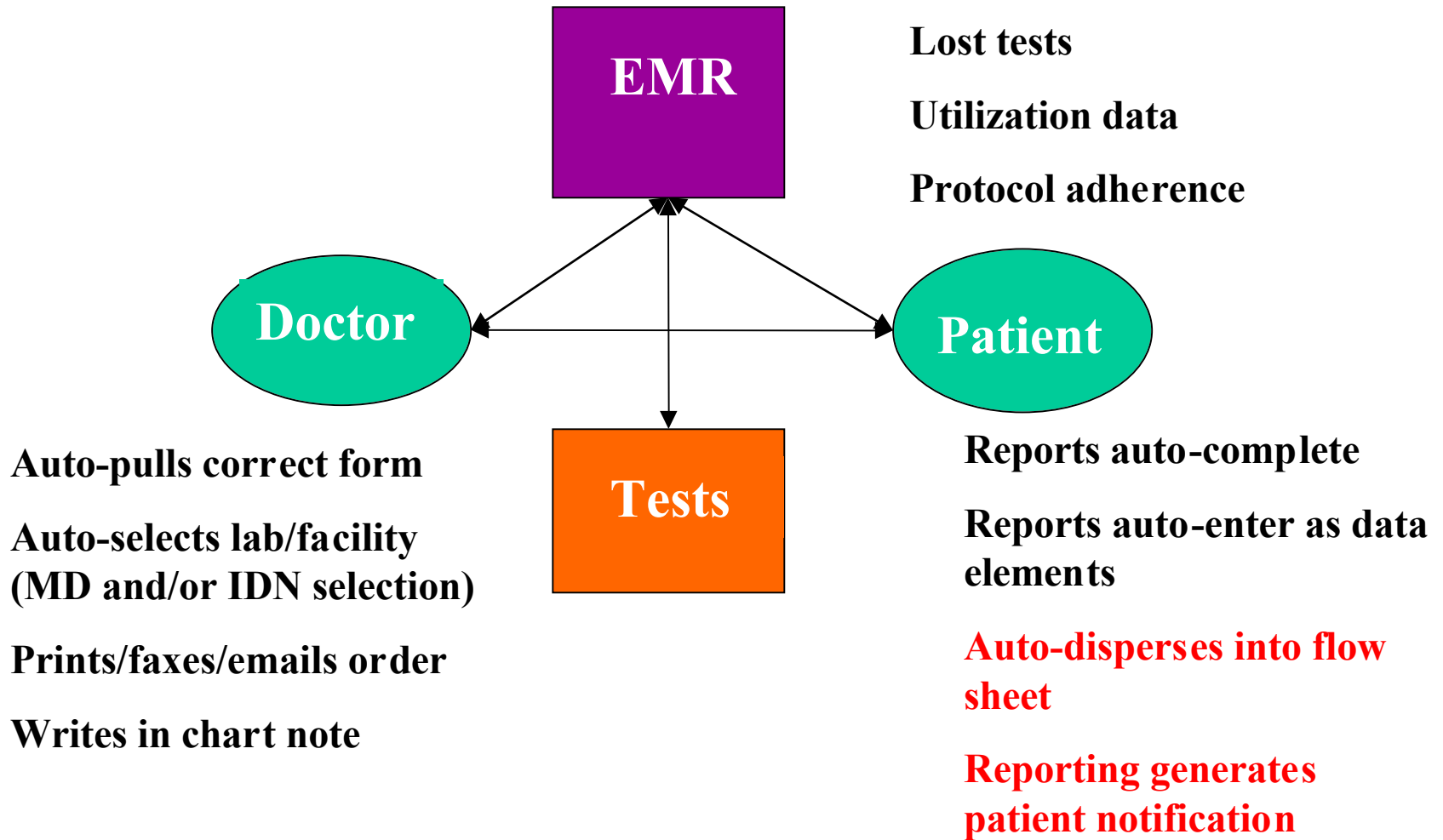
## Sidebar on Referrals

- Physicians refer to their friends
- **GUARANTEE** - build an electronic referral system that makes referral creation, storage, and retrieval a process that takes seconds (eliminating forms, use of multiple directories, callbacks, additional employees, etc), and.....
- We will forget our friends in a heartbeat!



# Example of lab/imaging studies

## Consolidation/Distribution of workflow





# The Promise of Clinical Reporting

- **The problem - physicians need better access to reports**
- **The solution - the Internet is the perfect medium to deliver - “Any report, anywhere, anytime”**
- **Is that really the problem, and does the solution create additional problems?**



# The case against consumer-centric clinical reporting

## Process

- Confidentiality/ patient release
- Altering the patient/physician contract
- “Lifetime” record management is time-consuming and not reimbursable

## Results management

- Useful?
- Dangerous?
- Disruptive?

**Cost?**



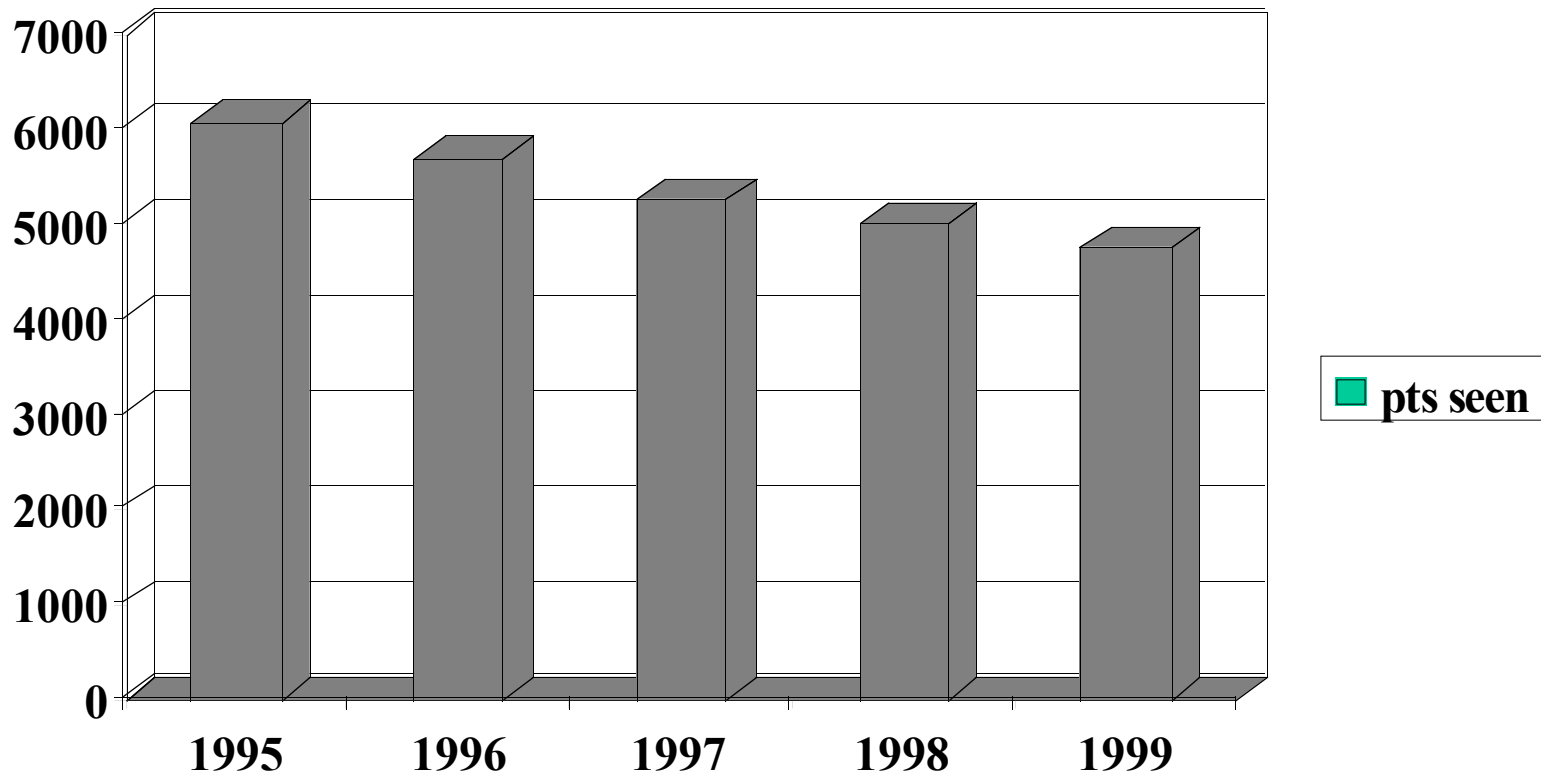
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**Can consolidation/distribution  
of workflow change physician  
productivity?**



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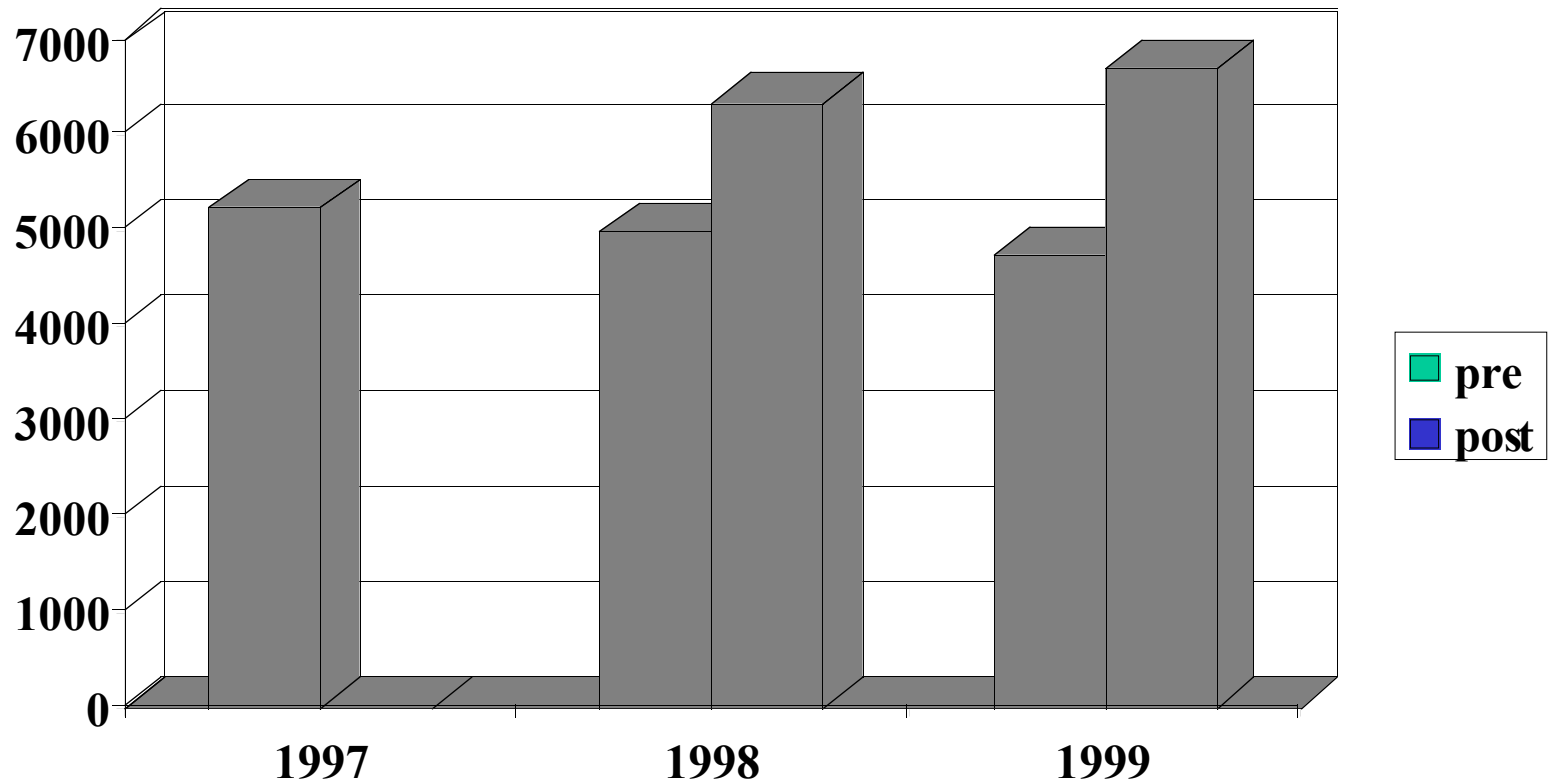
# Adverse financial trends - actual & projected





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# EMR - Year #2 patients seen





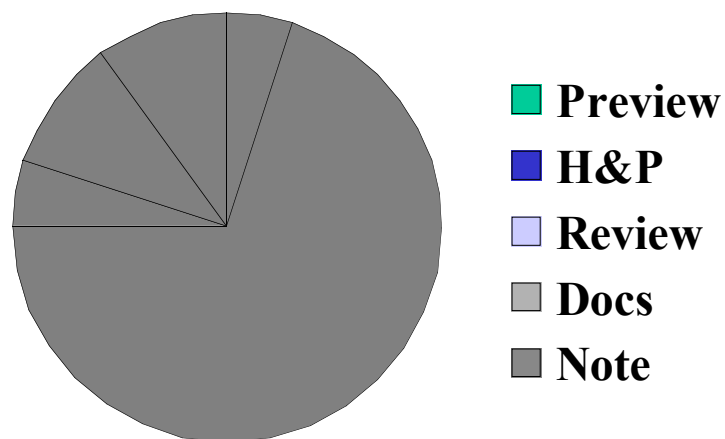
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# **Another look inside the exam room**



# Anatomy of a visit (post-EMR)

- Visits are quicker
- More “face-time”
- Chart preview & review are quicker
- Document creation helps make note
- Note completion - often done as pt leaves room





Logician - Peter Basch MD @ Washington Primary Care Physicians (WPCP) - 10/31/99 12:23 AM

Chart Module Section Action Update Help

Summary Problems Medications Alerts Flowsheet Orders Documents Update

**Dummy, I Ama**  
19 Year Old Male

Ins:  
Group:

**Document Info** ...

Office Visit  
10/31/1999 12:22 AM  
Peter Basch MD  
Doc ID: 30003

**OV1**

- OV-History
- OV-R0S
- OV-Consults
- OV-Prior Studies**
- OV-Imaging Studies
- OV-Prior Labs
- OV-PE1
- OV-PE2
- OV-Labs & Studies
- OV-Assessment
- OV-Plan

Immunizations  
Text Note

**PERTINENT PRIOR STUDIES INCLUDE:**

**CARDIAC STUDIES:**

EKG:  sinus bradycardia with rate of 58 (11/27/1998 8:45:31 AM)

Echo:  wnl (09/22/1999 12:54:18 PM)

Holter:  (09/22/1999 12:54:18 PM)

Event recorder:  4 (07/02/1998 11:34:40 AM)

Stress EKG:  2mm ST elevation (09/22/1999 12:54:18 PM)

Thallium stress:  6 (07/02/1998 11:34:40 AM)

utamine stress echo:  7 (07/02/1998 11:34:40 AM)

Cardiac cath:  8 (07/02/1998 11:34:40 AM)

**GI STUDIES:**

EGD:  slight acid reflux, no barrets esophagus (12/03/1998 1:39:23 PM)

Sigmoidoscopy:  wnl (11/27/1998 8:32:03 AM)

Colonoscopy:  wnl (12/03/1998 1:39:23 PM)

**NEURO STUDIES:**

EEG:  1 (07/02/1998 11:34:40 AM)

EMG:  2 (07/02/1998 11:34:40 AM)

NCV:  3 (07/02/1998 11:34:40 AM)

**PULMONARY STUDIES:**

Bronchoscopy:  1 (07/02/1998 11:34:40 AM)

Spirometry:  3 (07/02/1998 11:34:40 AM)

Add Forms... End Update...

Desktop
 Chart
 Appts
 Reg
 Reports
 Flags
 Help
 EXIT



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Logician - Peter Basch MD @ Washington Primary Care Physicians (WPCP) - 10/31/99 12:24 AM

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**IMAGING STUDIES**

**PERTINENT PRIOR IMAGING STUDIES INCLUDE:**

CXR:	<input type="checkbox"/>	WNL (10/19/1999 9:46:30 AM)
Mammogram:	<input type="checkbox"/>	wnl (10/19/1999 9:46:30 AM)
Xray (other):	<input type="checkbox"/>	kasdjfajfopiwjeflkajes (10/19/1999 9:46:30 AM)
Abd sono:	<input type="checkbox"/>	solitary gallstone, walls not thickened (10/19/1999 9:46:30 AM)
Carotid duplex:	<input type="checkbox"/>	9 (07/02/1998 11:34:40 AM)
Echo:	<input type="checkbox"/>	wnl (09/22/1999 12:54:18 PM)
Pelvic sono:	<input type="checkbox"/>	enlarged fibroid (04/06/1999 1:40:44 PM)
Renal sono:	<input type="checkbox"/>	1 (07/02/1998 11:34:40 AM)
Testes sono:	<input type="checkbox"/>	2 (07/02/1998 11:34:40 AM)
Vascular study:	<input type="checkbox"/>	10 (07/02/1998 11:34:40 AM)
BMD:	<input type="checkbox"/>	
IVP:	<input type="checkbox"/>	2 (07/02/1998 11:34:40 AM)
CT of abd:	<input type="checkbox"/>	6 (07/02/1998 11:34:40 AM)
CT of head:	<input type="checkbox"/>	4 (07/02/1998 11:34:40 AM)
CT of lumbar spine:	<input type="checkbox"/>	1 (07/02/1998 11:34:40 AM)
CT of pelvis:	<input type="checkbox"/>	7 (07/02/1998 11:34:40 AM)
MRI of head:	<input type="checkbox"/>	5 (07/02/1998 11:34:40 AM)
MRI of lumbar spine:	<input type="checkbox"/>	2 (07/02/1998 11:34:40 AM)

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**PRIOR LABS**

**PERTINENT PRIOR LABS INCLUDE:**

Choles. <input type="checkbox"/>	<b>189 (11/27/1998 8:32:03 AM)</b>	HDL <input type="checkbox"/>	<b>56 (11/27/1998 8:32:03 AM)</b>
LDL <input type="checkbox"/>	<b>112 (11/27/1998 8:32:03 AM)</b>	Triglyc. <input type="checkbox"/>	<b>300 (03/06/1998 12:52:15 PM)</b>
Hct <input type="checkbox"/>	<b>42% (11/27/1998 8:32:03 AM)</b>	Hgb <input type="checkbox"/>	<b>12.1 GM/DL (08/31/1998 2:16:00 PM)</b>
WBC <input type="checkbox"/>	<b>4.6 K/CMM (08/31/1998 2:16:00 PM)</b>	Platelet <input type="checkbox"/>	<b>133 K/CMM (08/31/1998 2:16:00 PM)</b>
Ferritin <input type="checkbox"/>		INR <input type="checkbox"/>	<b>1.8 (01/29/1998 5:53:26 AM)</b>
BUN <input type="checkbox"/>	<b>8 (08/31/1998 2:16:00 PM)</b>	Creat. <input type="checkbox"/>	<b>0.6 (08/31/1998 2:16:00 PM)</b>
K+ <input type="checkbox"/>	<b>4.2 (08/31/1998 2:16:00 PM)</b>	Glucose <input type="checkbox"/>	<b>104 (11/27/1998 8:32:03 AM)</b>
HgBA1C <input type="checkbox"/>		SGOT <input type="checkbox"/>	<b>15 (08/31/1998 2:16:00 PM)</b>
SGPT <input type="checkbox"/>		GGT <input type="checkbox"/>	
HBsAg <input type="checkbox"/>		HBsAb <input type="checkbox"/>	
HBcAb <input type="checkbox"/>		HCAb <input type="checkbox"/>	
HIV <input type="checkbox"/>		Viral load <input type="checkbox"/>	
CD4 <input type="checkbox"/>		CD8 <input type="checkbox"/>	
FSH <input type="checkbox"/>		PSA <input type="checkbox"/>	
TSH <input type="checkbox"/>	<b>0.8 (11/27/1998 8:32:03 AM)</b>	T4 <input type="checkbox"/>	<b>7.6 (11/27/1998 8:32:03 AM)</b>
H. pylori <input type="checkbox"/>	<b>8 (07/02/1998 11:34:40 AM)</b>	Pap <input type="checkbox"/>	<b>mild atypia (11/27/1998 8:32:03 AM)</b>

Add Forms... End Update...

Desktop Chart Appts Reg Reports Flags Help EXIT

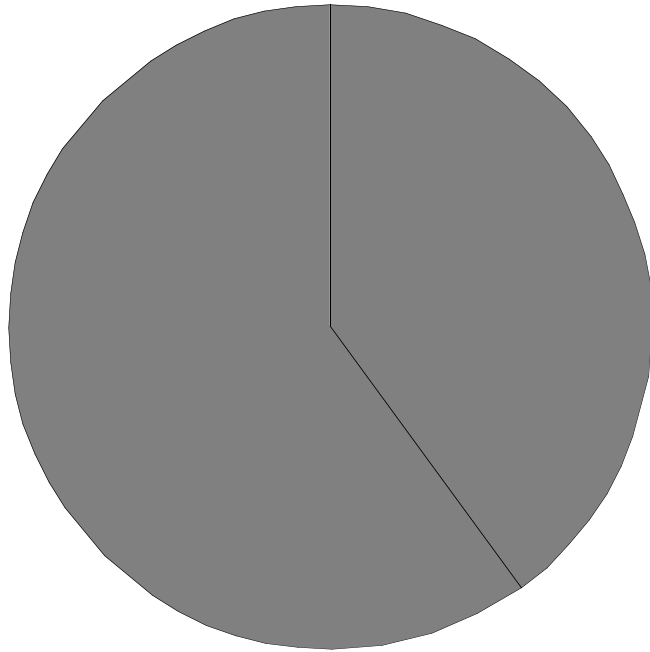


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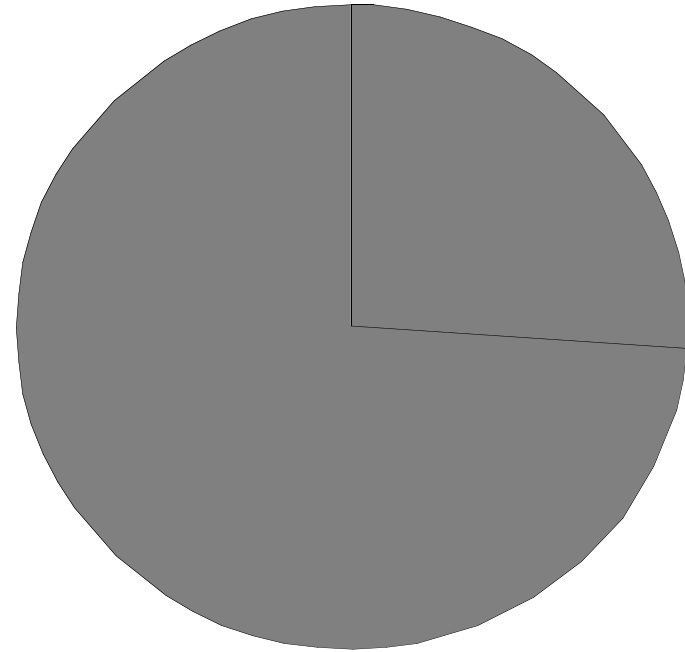
# Direct patient care/**Nonbillable**

(average 10 hour day)

**Then**



**Now**



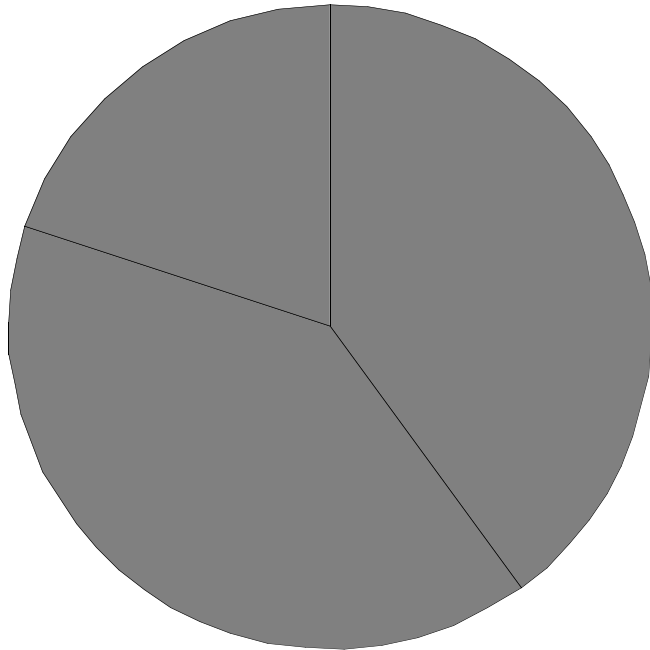


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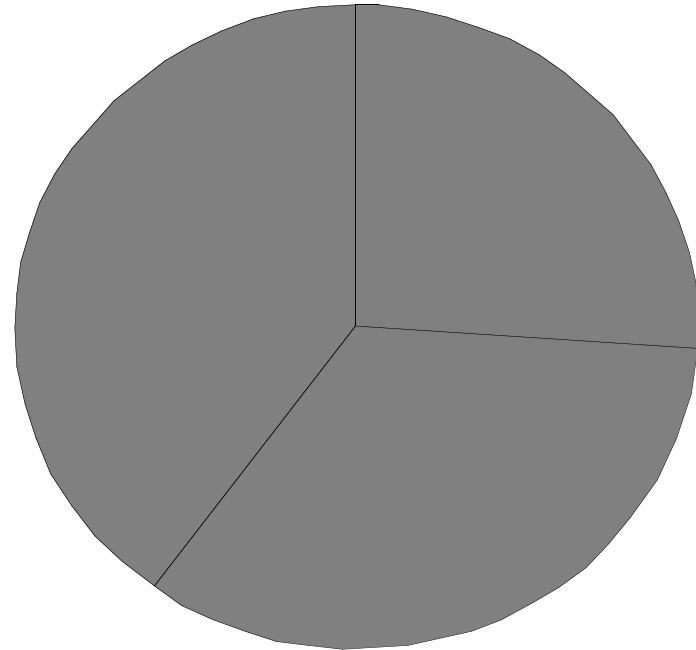
# Face/Other/Nonbillable

(average 10 hour day)

**Then**



**Now**





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# My day

## Then

- **Pre-office hours - hospital rounds**
- **8-9am - lab review**
- **9-12pm - patients**
- **12-12:30pm - overrun**
- **12:30-1:15pm - dictate**
- **1:15-1:30pm - lunch, journals**
- **1:30-4:30pm - patients**
- **4:30-5:00pm - calls**
- **5-5:45pm - dictate**
- **Post-office hours - hospital rounds, journals**

## Now

- **Pre-office hours - WebMD**
- **8-8:20am - labs/letters**
- **8:20-11am - patients**
- **11-12:00pm - lunch/calls/Medscape/websurf**
- **12:00-5pm - patients**
- **5-5:45pm - records, mail**
- **Respond, triage/return calls throughout the day**
- **Read and respond to e-mail throughout the day**



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# Structural changes

- **On-time**
- **Walk-ins**
- **Lunch hour**
- **Email**
- **Website**
- **Collaborative literature searches**
- **Hospital rounds**
- **Journals**



# What then is an e-physician?

- **Not a necessarily a techno-geek**
- **Use tools of the Web/I.T.**
- **Re-connected to information**
- **Re-connected to the patient/consumer**
- **More efficient/productive/successful/happy**
- **Able to look towards medicine's second curve**
- **? Re-connected to hospital/IDN**



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# Forrester II

