Mobile Devices to Improve Hospital Efficiency

Thomas Mohr, D.O., FACOI
Associate Dean for GME
Professor of Internal Medicine
University of the Incarnate Word
School of Osteopathic Medicine
San Antonio, Texas

Disclosure

- I have nothing to disclose
  - No financial interest in any products
  - I have not been given free use of any product

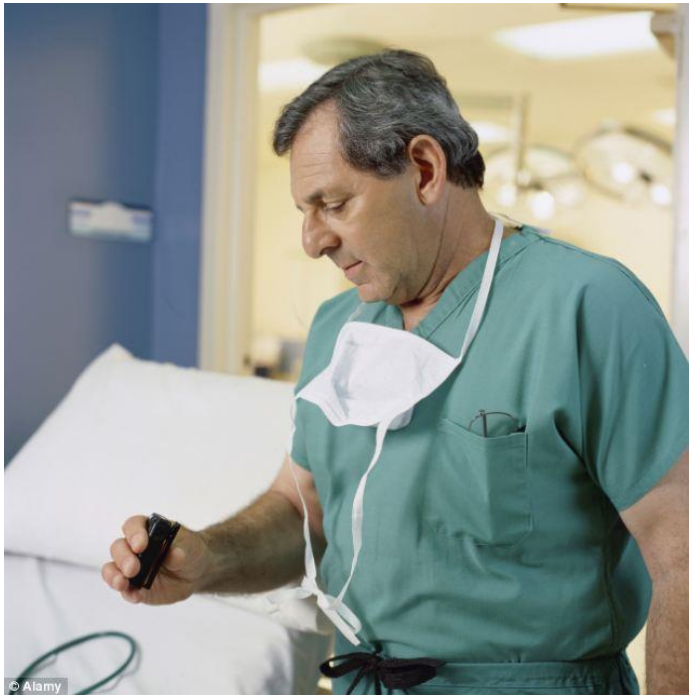
- This presentation is intended to increase awareness of apps on the market and is not intended to recommend products for use in medical practice

- There are many more Apps than we have time to discuss.

OMG!
I JUST GOT
BORN!

Remember When?

Last Paging Service 2012
415-494-8007
Photo Credit: http://www.ebay.com/


© Alamy

NEWS

Clinicians' Use of Mobile Devices
(2014)

- To view patient information **69%**
- To look up non-PHI health information **65%**
- For education or training purposes **49%**
- For clinical notifications **42%**
- For secure communications regarding patients **39%**

http://www.mobihealthnews.com/30328/survey-70-percent-of-clinicians-use-mobile-devices-to-view-patient-information/

http://www.beckershospitalreview.com/healthcare-information-technology/clinicians-use-of-mobile-devices-in-hospitals-17-statistics-consequences-and-concerns.html

Clinicians' Use of Mobile Devices

1	**Do you use a mobile device in clinical work?**	
	Mobile devices permitted or used in clinical work	88.1%
	Mobile devices not permitted	11.9%
2	**What type of mobile device do you use in clinical work?**	
	Smartphone	63.3%
	Tablet	19.9%
3	**How many hospitalists choose not to use devices?**	
	Smartphones are permitted, but I don't use them in my clinical work	16.8%
	Tablets are permitted, but I don't use them in my clinical work	17.6%
4	**The future use of mobile devices** In the next five years, do you anticipate the use of smartphones and tablets in clinical work will become. . .	
	Much more significant	71.7%
	Slightly more significant	21.7%
	About the same as now	5.8%
	Use will decrease	0.8%

http://www.todayshospitalist.com/a-look-at-mobile-devices-in-the-hospital/

Advanced Nursing Care

- Wireless communication (Vocera or VOIP)
- Real-time location systems
  - Equipment, medications, patients
- Wireless patient monitoring
- Medication administration with bar-coding
- Workflow management systems
- Interactive patient education

http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/PDF%20E/PDF%20EquippedForEfficiency.pdf

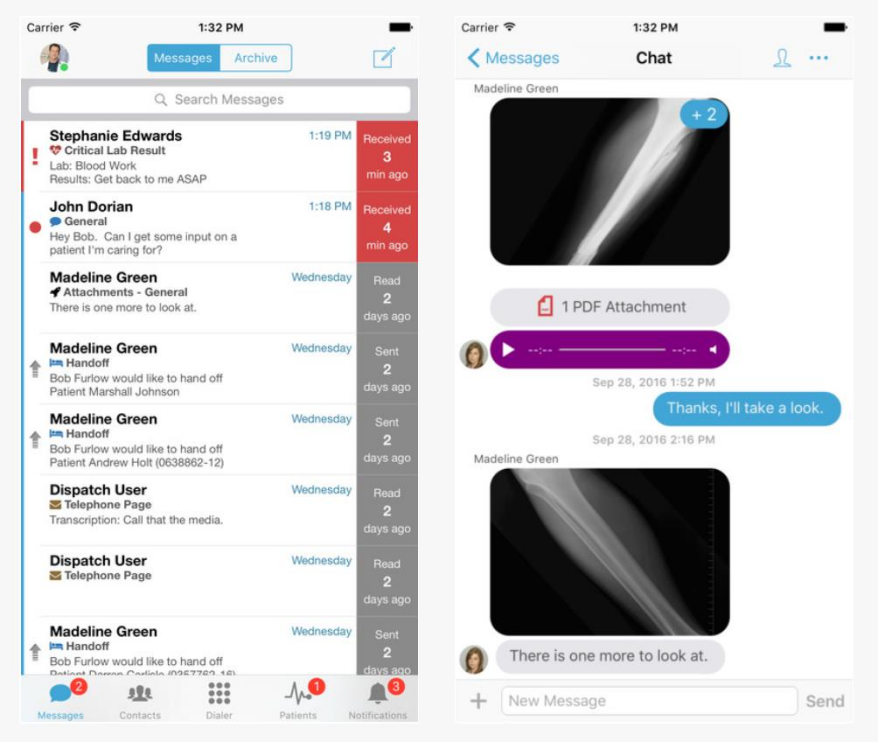
Improving Efficiency for Doctors

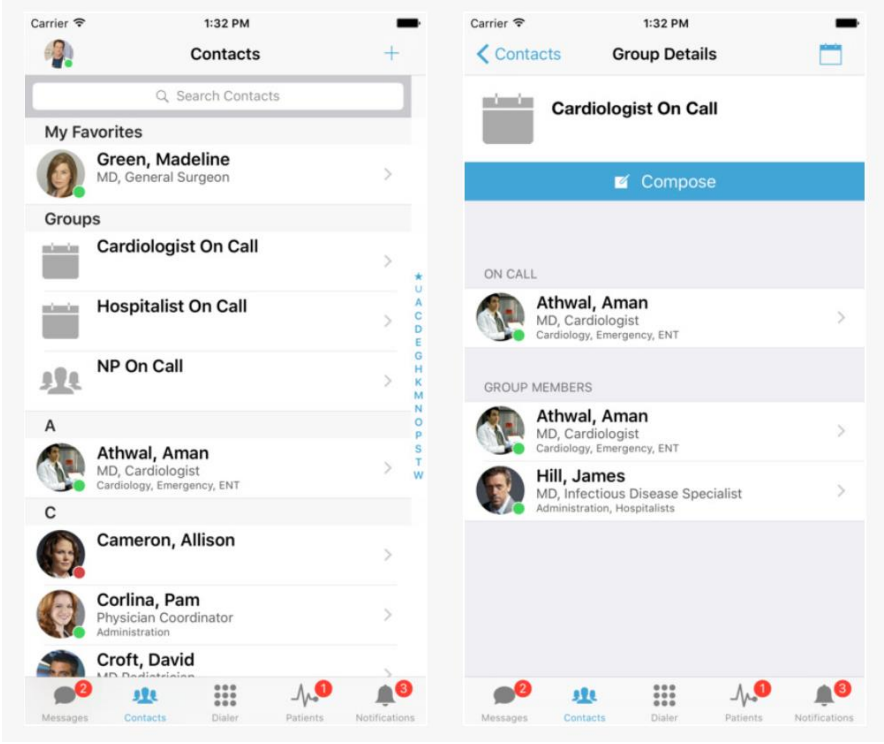
- Communication
- Information Retrieval
- Decision-Making
- Record-keeping
- Billing and Handoffs
- Patient Experience

Physician Communications

SmartPager by TeleMed IQ

- HIPPA Compliant pager
  - Text messages, pages, and voice messages
  - Can receive and send and confirm receipt
  - One touch call back and group paging
  - Storage of contacts
  - Voice to text transcription

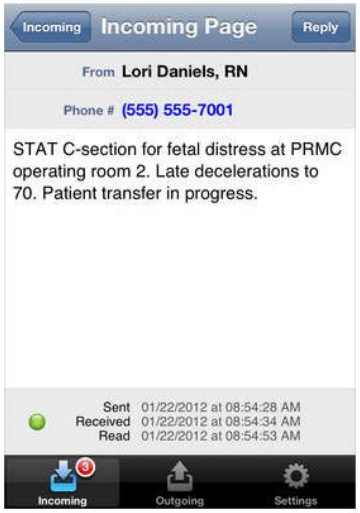


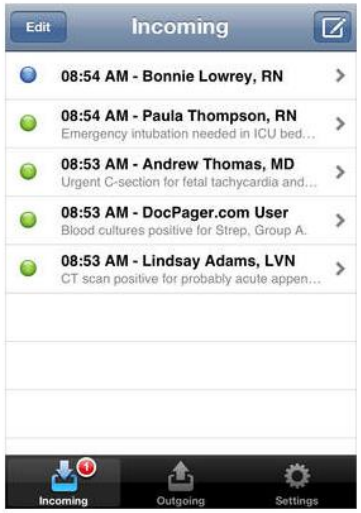


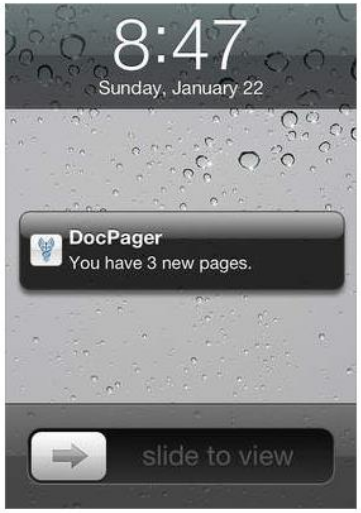
DocPager

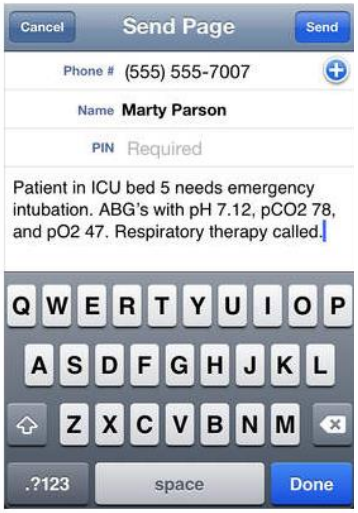
- HIPPA Compliant pager
  - Text messages and pages
  - Uses cellular or WiFi
  - Can track incoming/outgoing pages
  - No voice message capabilities

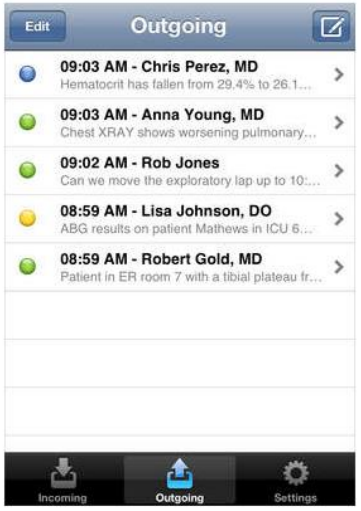
($99.99/year)











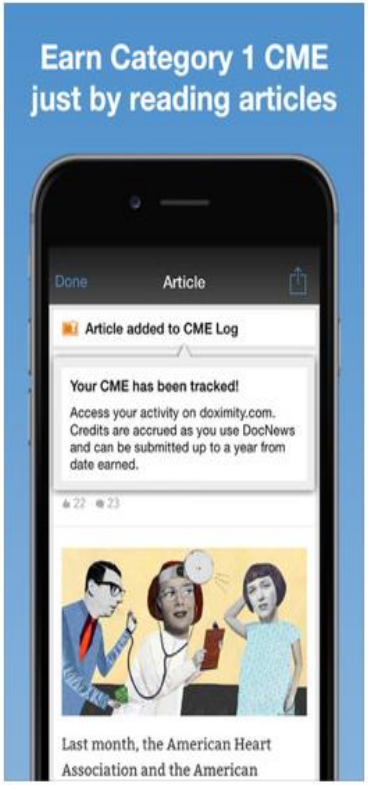
Networking between Doctors

Doximity

- Largest doctor network (>50% of physicians)
- HIPPA secure communication & faxing
- Find almost any US physician

(Free)

- CME articles and job offers for doctors only

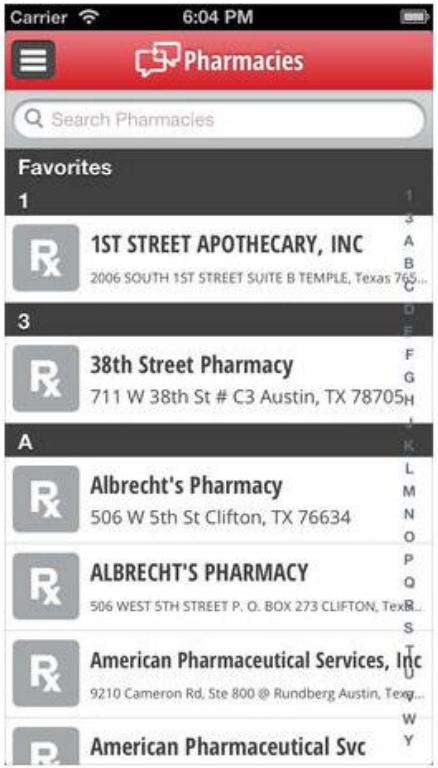


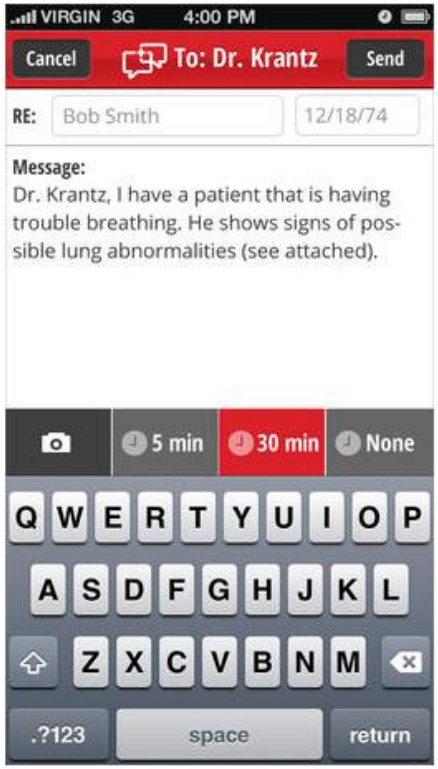
DocbookMD

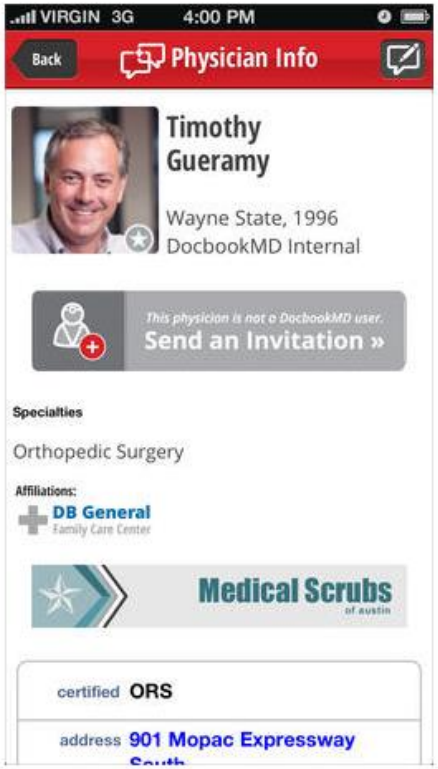
- Data sharing and communication tool for physicians and their team
- HIPPA secure transmission of patient data to colleagues

(Free)

- HIPPA compliant multi-media messaging





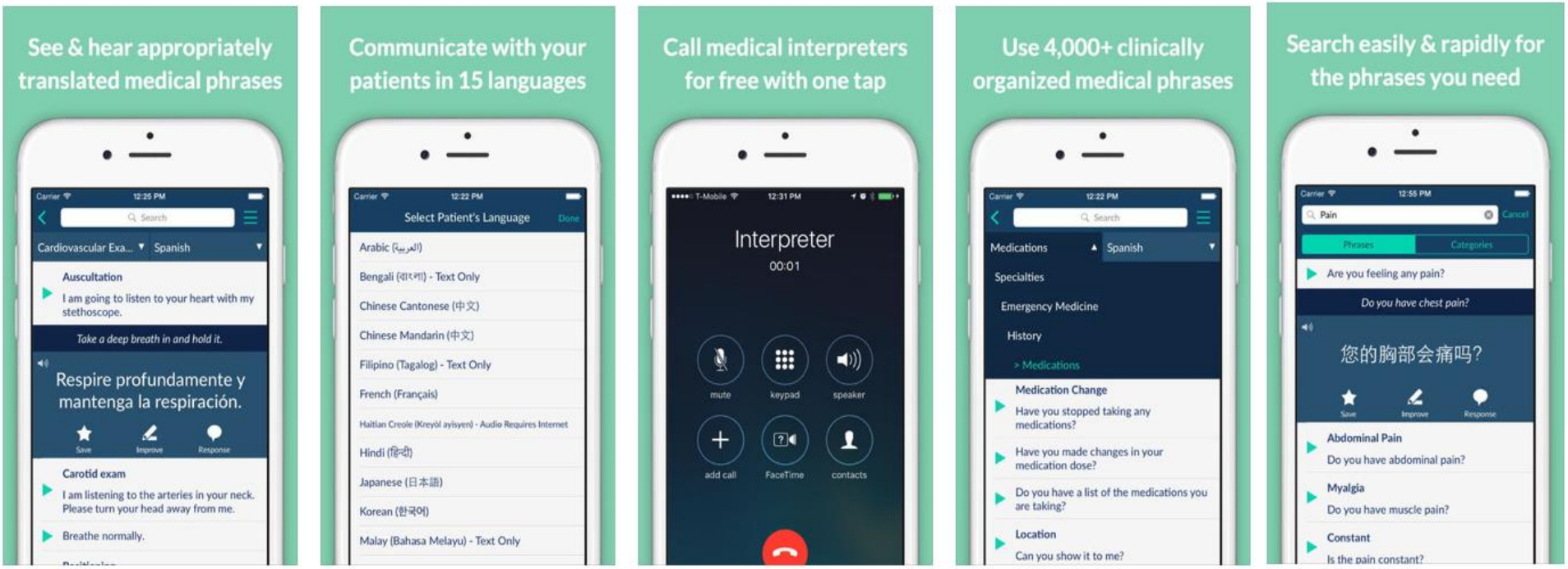


Communicating with Patients

Canopy

- Medical phrases translated for use at the point of care – multiple languages
  - Over 4000 common medical phrases
- Call your medical interpreter if needed

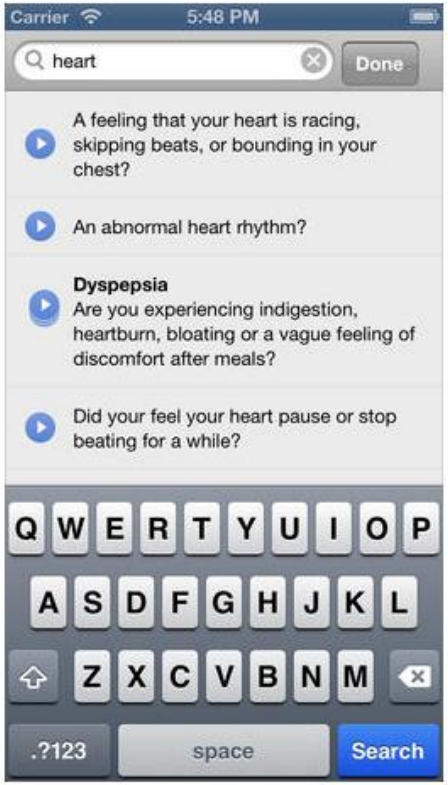
(Free)



MediBabble Translator

- Five languages with questions in order of H&P
- No internet connection required

(Free)



Improving Efficiency for Doctors

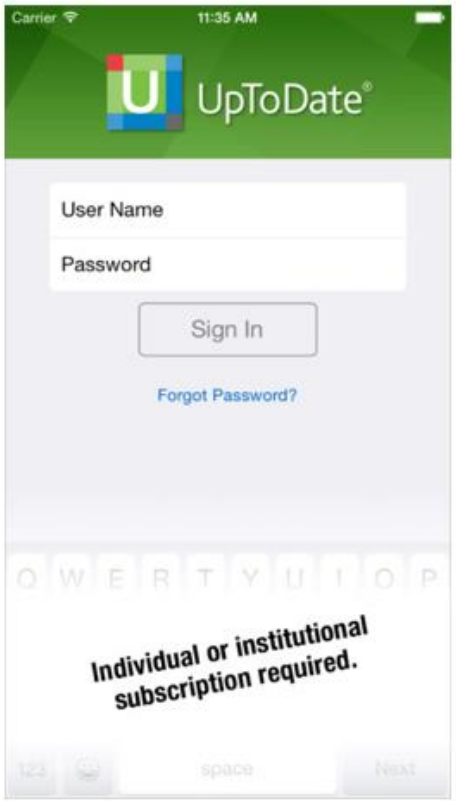
- Communication
- Information Retrieval
- Decision-Making
- Record-keeping
- Billing and Handoffs
- Patient Experience

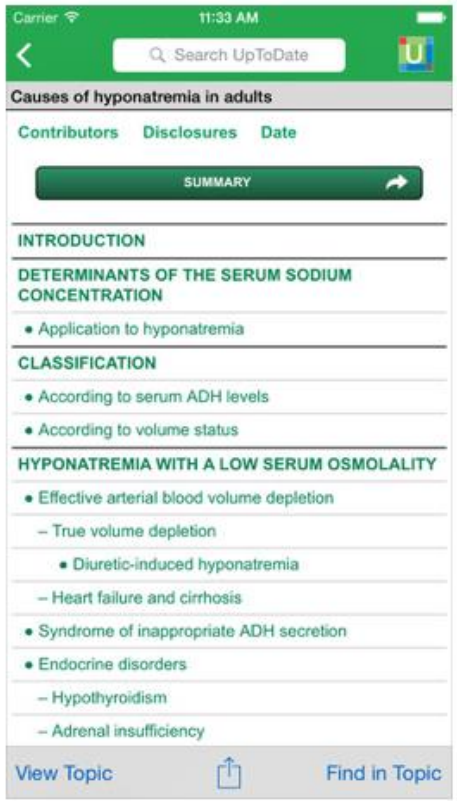
POS Reference
e-Books on the Go

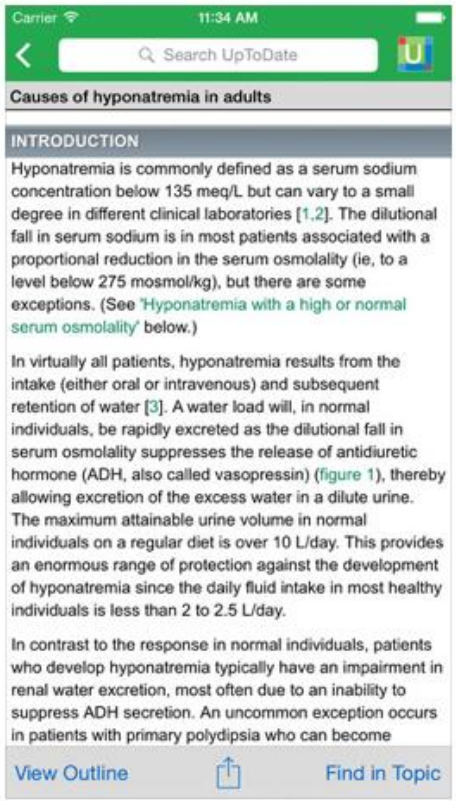
UpToDate

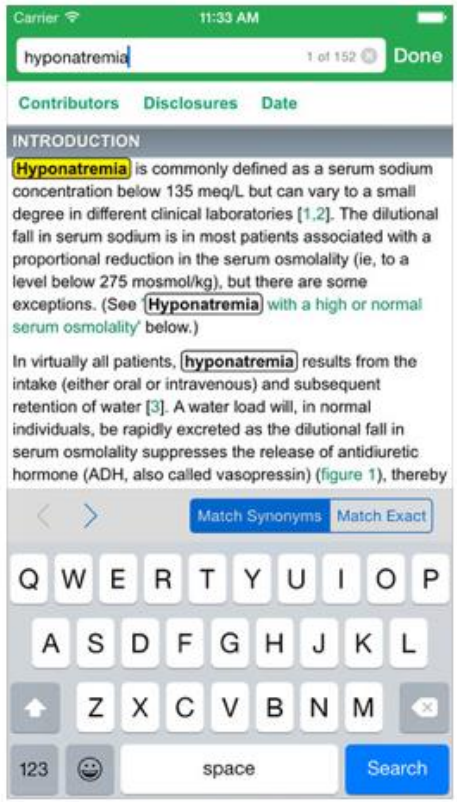
- Leading clinical decision support resource
- Evidence-based clinical information
- Earn and track free CME
- Mobile optimized calculators

($500/year)





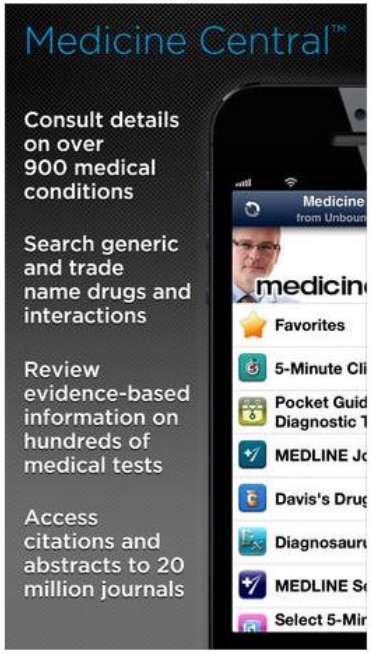




Medicine Central

- Integrated Drug and Test Resource
- Includes 5-MCC, Davis's Drug Guide, McGraw-Hill's Diagnosaurus, Pocket Guide to Diagnostic Tests, Medline Search
- Requires annual subscription

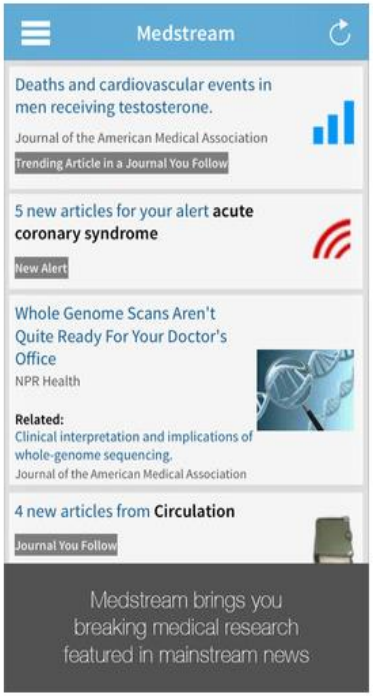
($169/year)

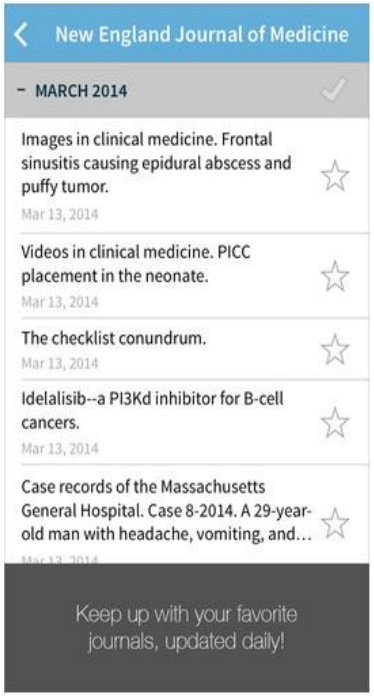


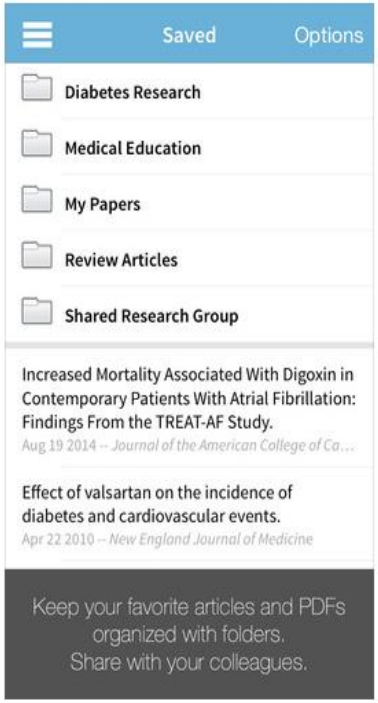
Docphin

(Free)

- Best App for Doctors in 2015
- Follow journals, search PubMed
  - access over 1000 landmark articles.
- Weekly e-mail digest
- Save and annotate PDFs



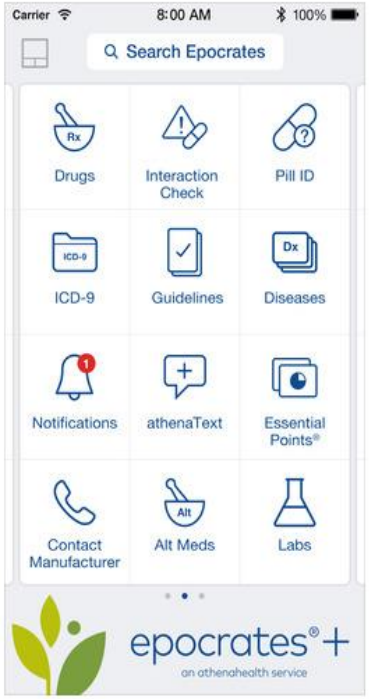


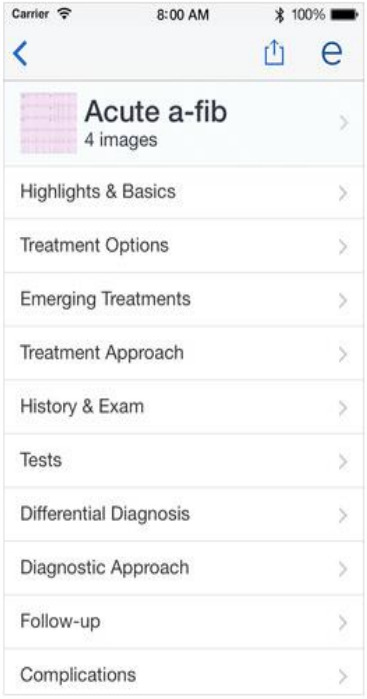


Epocrates

- Over 1 million doctors use Epocrates
- Drug prescribing, interactions, guidelines
- Medical calculator
- HIPPA Compliant text messaging

($175/year for Plus)





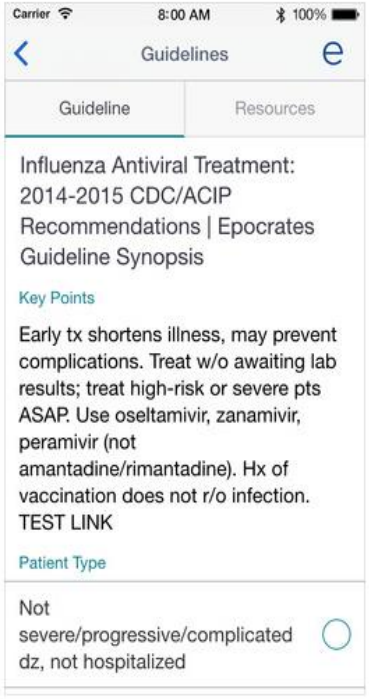
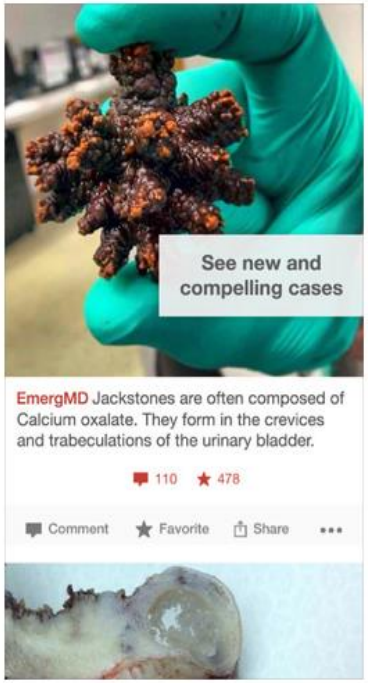


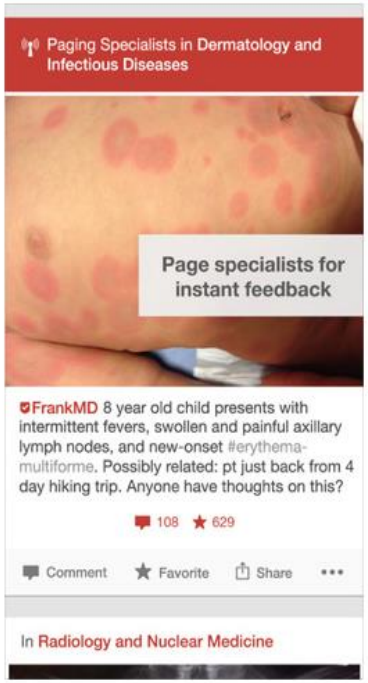
fig. 1

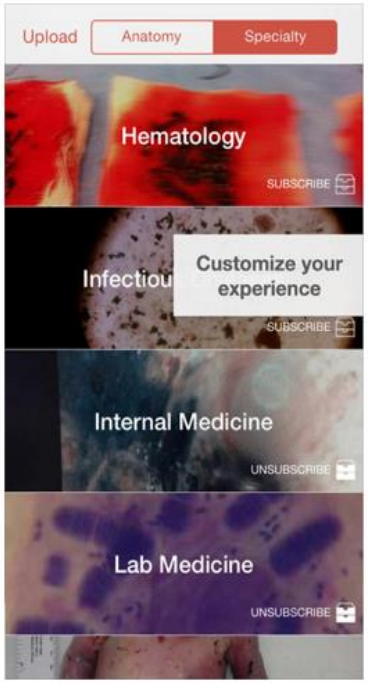
Figure 1

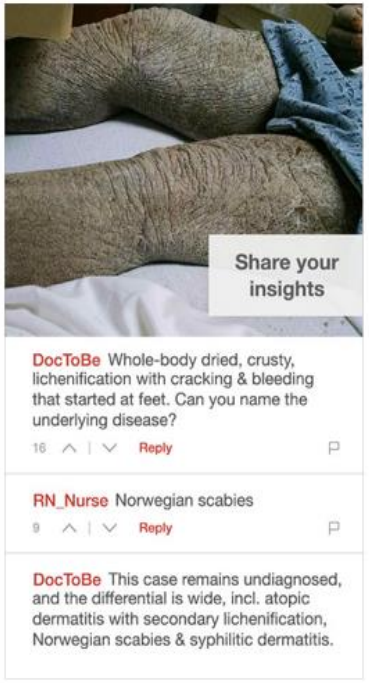
- Safely share clinical cases
- Help diagnose or teach others
- HIPPA Compliant
  - In-app consent form
  - Remove identifying details

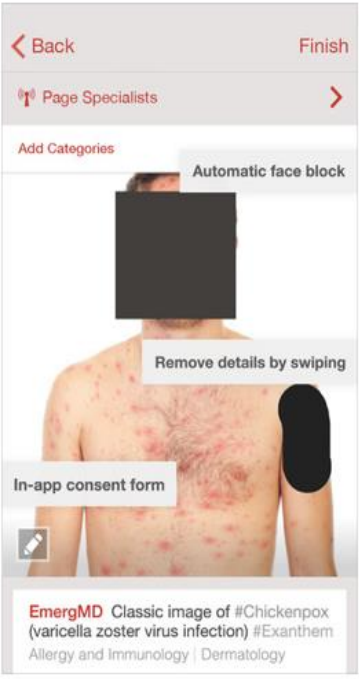
(Free)











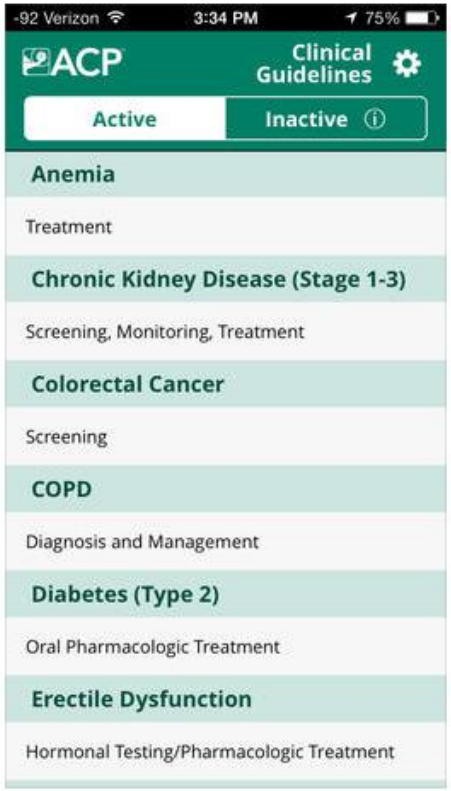
Improving Efficiency for Doctors

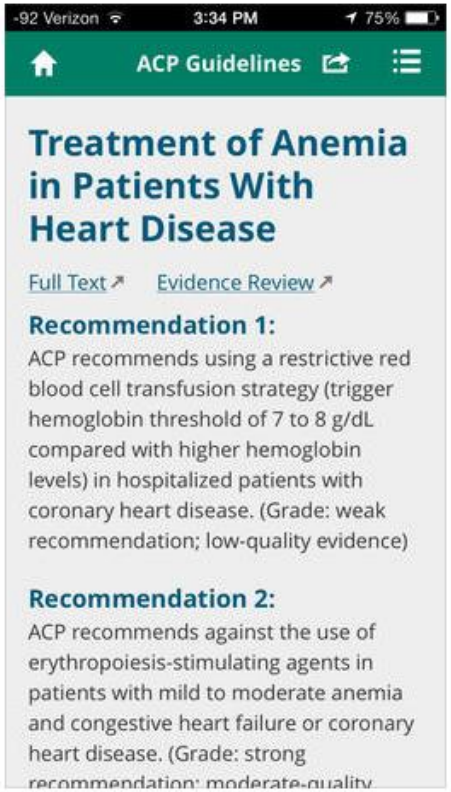
- Communication
- Information Retrieval
- Decision-Making
- Record-keeping
- Billing and Handoffs
- Patient Experience

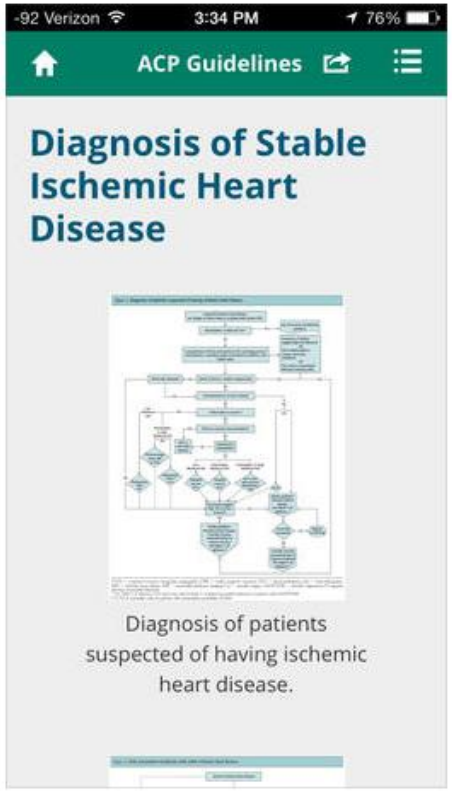
ACP Clinical Practice Guidelines

Free

- Evidence-based clinical practice guidelines
- Includes recommendations and rationale
- Algorithms and summary tables
- Talking points





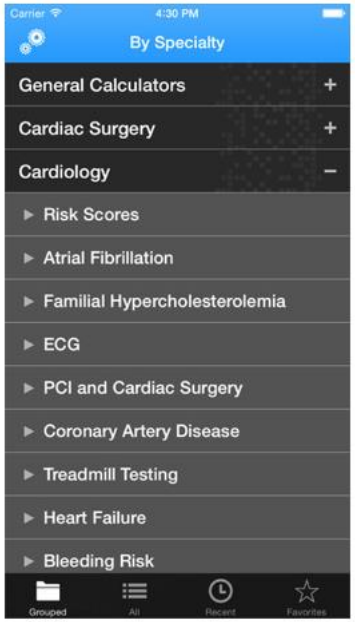


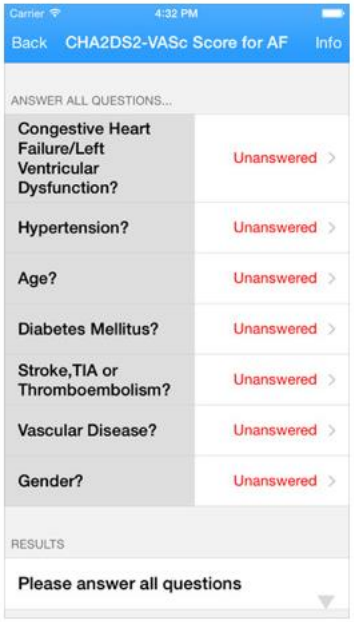
Medical Calculators

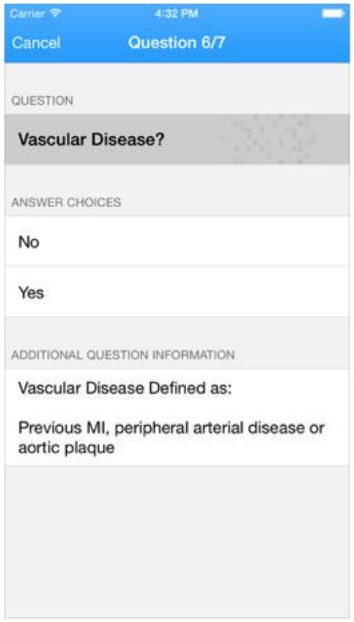
Calculate by QxMD

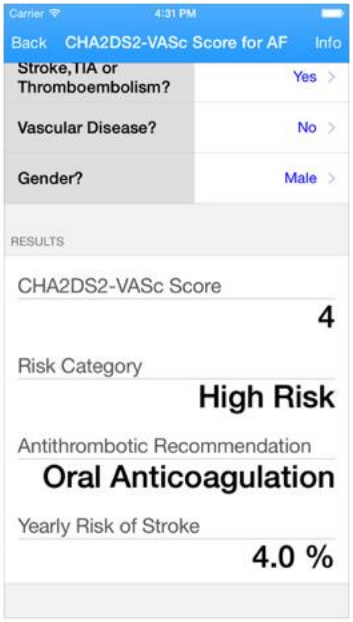
Free

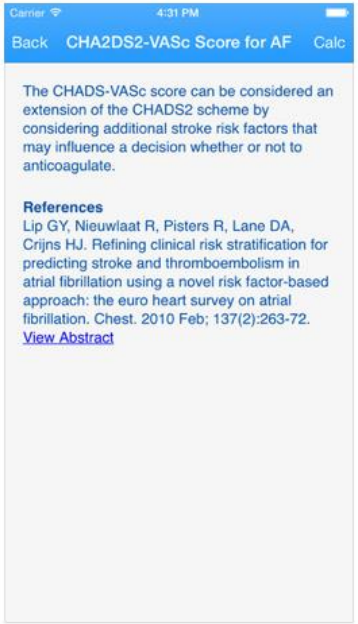
- 200 calculators and decision support tools
- Pre-Operative Risk Calculators
- Referenced with PubMed integration









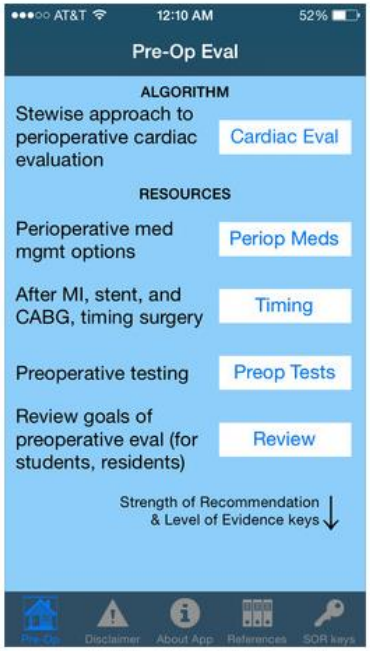


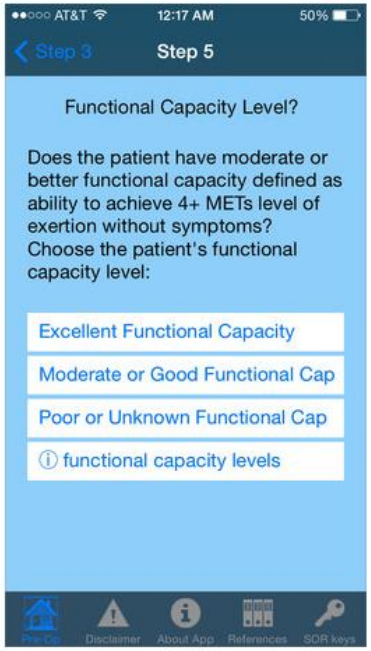
Preop Eval

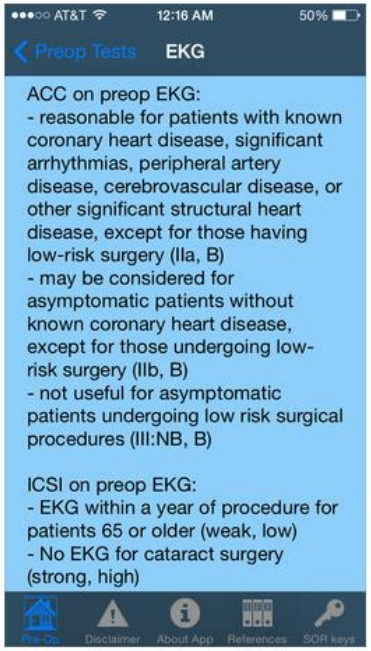
Guidelines to evaluate and prepare adult patients for non-cardiac surgery

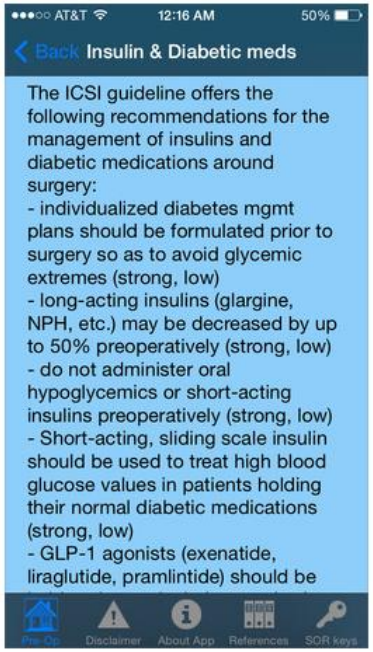
- Cardiac evaluation algorithm
- Medication start/stop guidance
- Timing of surgery after cardiac events
- Preoperative testing guidance
- Review of the periop evaluation for students/residents

Free
(iOS only)







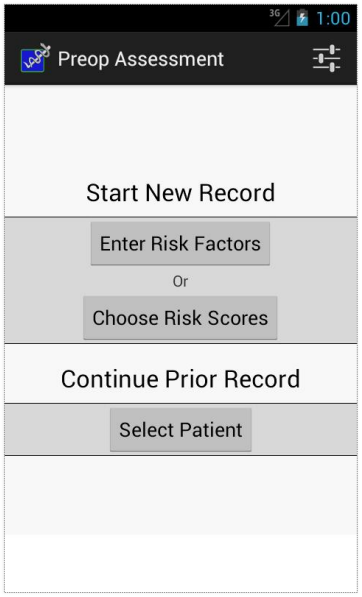


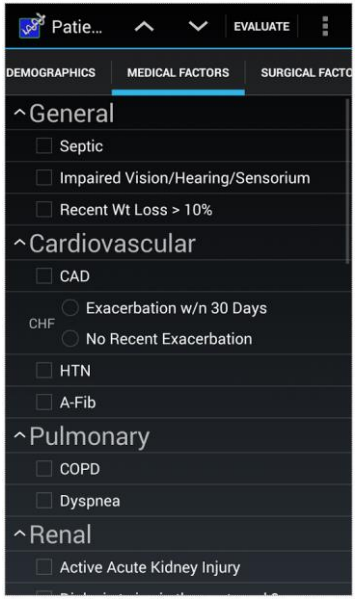
Preop Risk Assessment

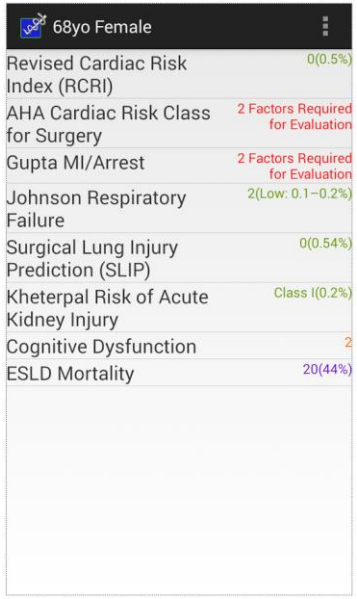
Evaluate multiple risk scores without re-entering data

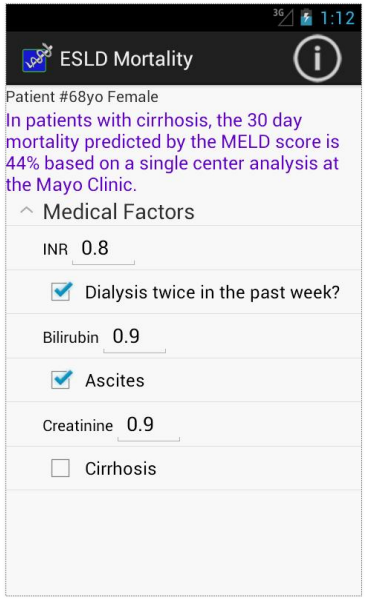
- Includes RCRI, RRI, SLIP, MICA

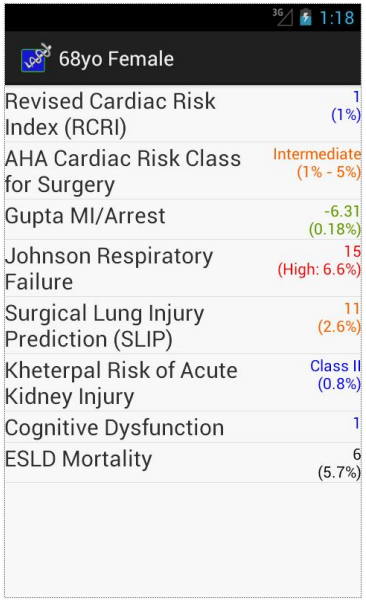
Free
(Android only)







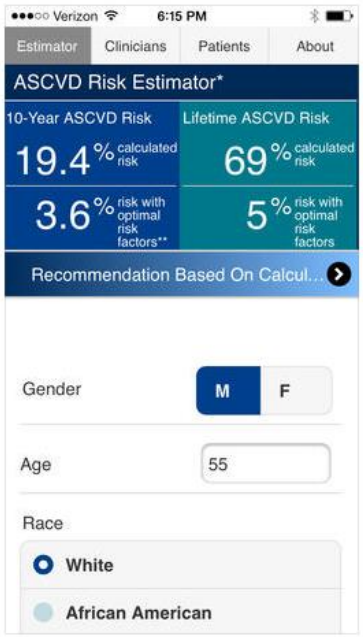


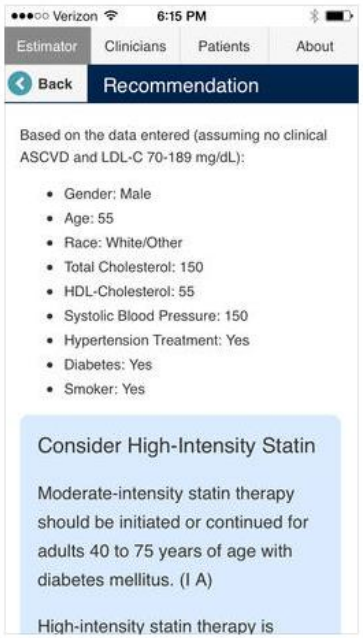


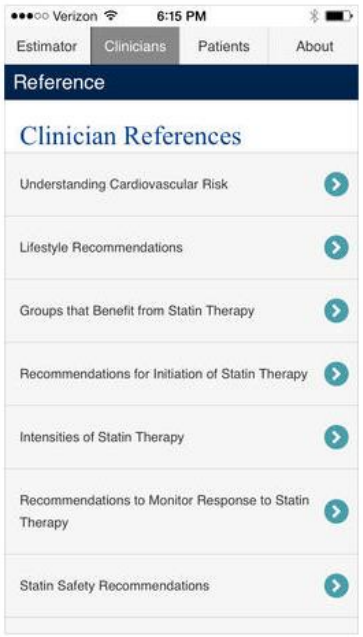
ASCVD Risk Estimator

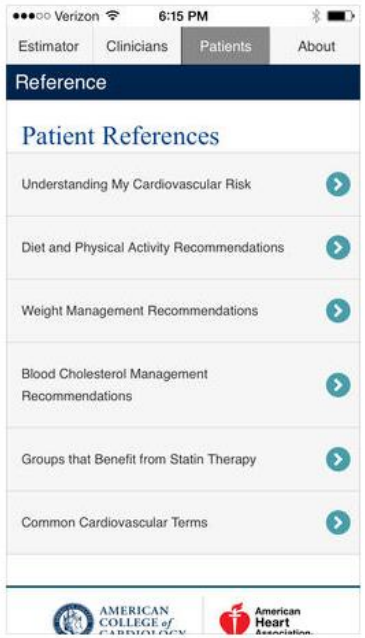
Free

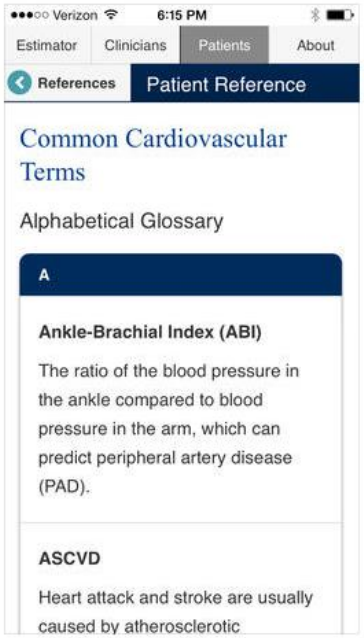
- Published by the ACC and AHA
- Estimates 10 year and lifetime ASCVD risk
- Guidelines for therapy, monitoring, and lifestyle









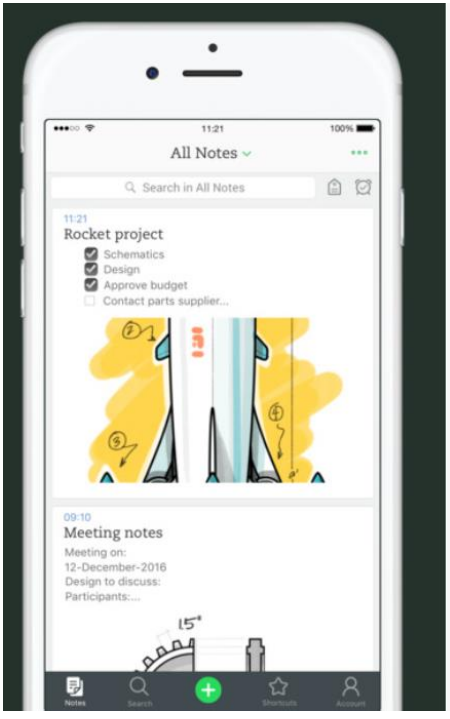


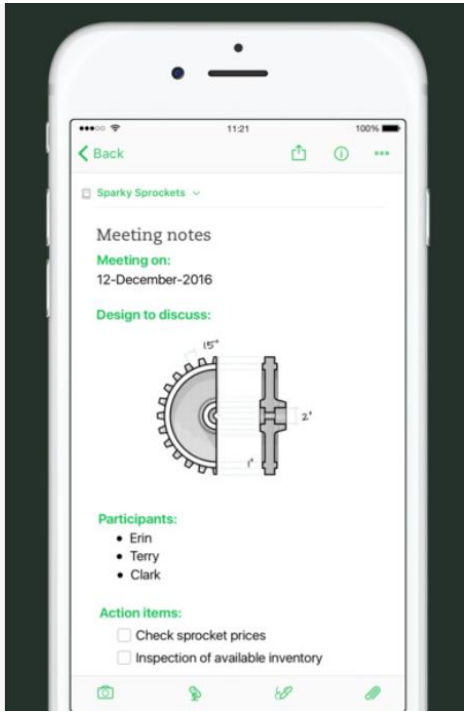
Improving Efficiency for Doctors

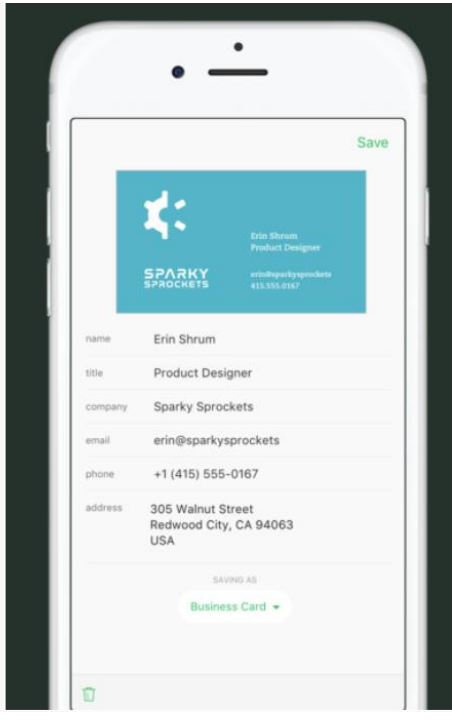
- Communication
- Information Retrieval
- Decision-Making
- Record-keeping
- Billing and Handoffs
- Patient Experience

Evernote

- Store any note or multimedia
- Keep meeting minutes
- Scan and save
- Search your own handwriting

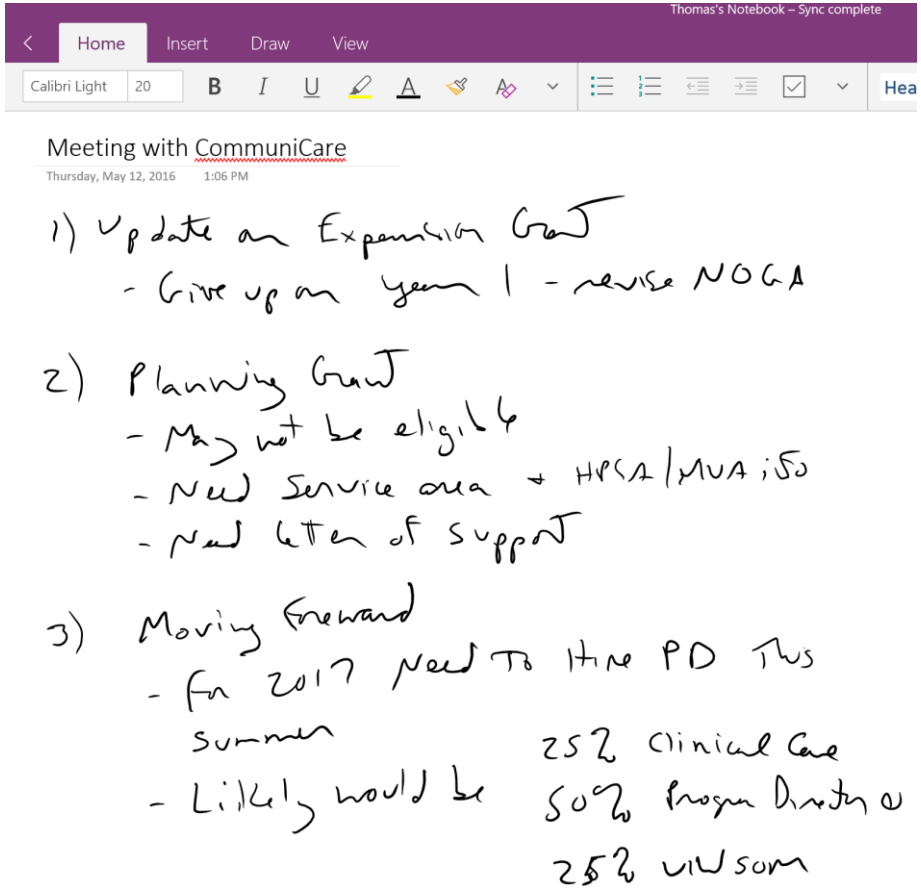






One Note

Keep meeting notes
Store files and multimedia
Works great on tablets

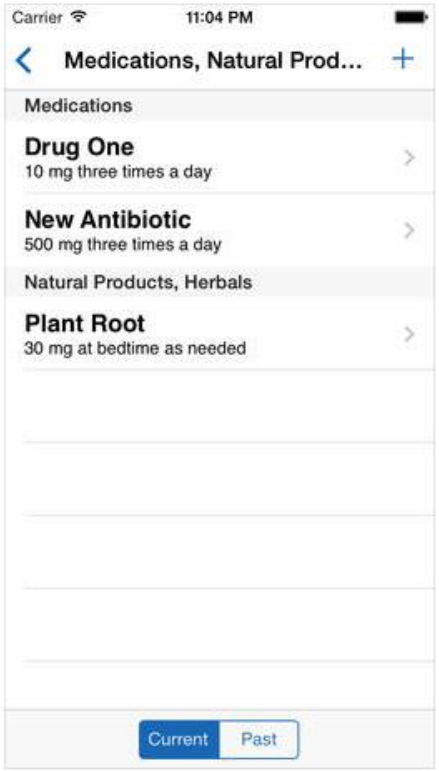


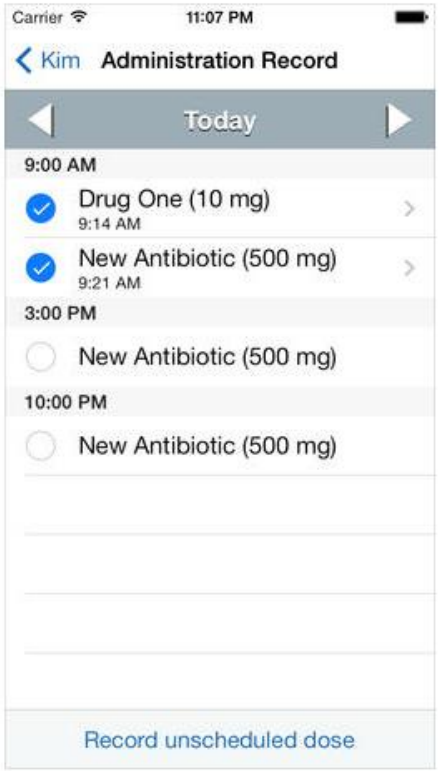
Personal Health Records

MyMedRec

- Personal Medical Record for Patients
  - Can be shared with health professionals
  - Reminders and logs for medications
  - Personal drug information

(Free)





Capzule PHR - Your Personal...
Medical
$19.99

Healthspek - Personal Health...
Medical
Get

onpatient PHR - Personal Health...
Health & Fitness
Get

FollowMyHealth Mobile
Medical
Get

Personal Running Trainer - Run...
Health & Fitness
Get
In-App Purchases

Personal Health Record Lite
Medical
Get
In-App Purchases

Teladoc Member – 24/7 access to ...
Medical
Get

Personal Health Record
Health & Fitness
$0.99

Health Tracker & Manager for iPa...
Health & Fitness
$6.99

Hamilton Depression Scal...
Health & Fitness
Get

Health Tracker & Manager by...
Health & Fitness
Get
In-App Purchases

YourHealthReco... Mobile
Health & Fitness
Get

ZenVault Medical PHR
Medical
Get

Doctor's Note
Medical
$0.99

Minerva PHR Viewer
Health & Fitness
Get

myPRs (formerly PR: Personal...
Health & Fitness
$0.99

yogApp Lite
Health & Fitness
Get
In-App Purchases

Family Health Record
Health & Fitness
$1.99

EasyMed Medical Passport
Medical
Get

Healee
Medical
Get

Provisor for iPad
Medical
Get

CBI Assistant
Health & Fitness
Get

NYU Langone
Medical
Get

SecuEra PHR
Medical
Get

CladeHealth
Medical
$2.99

MedJournal Lite
Medical
Get

Healthmemo - Electronic Healt...
Health & Fitness
Get

CareFlowSHR
Medical
Get

iMedInfo
Health & Fitness
$1.99

Trillium Medical Center
Medical
Get

I'M HOME! ™
Medical
Get

Depression Screening Pro
Medical
$0.99

REKA
Health & Fitness
Get

Patient CCD Reader
Medical
$0.99

Better Day™ Health
Medical
Get

MphRx
Medical
Get

mihealth
Medical
Get

MyMedicalReco... PHR
Health & Fitness
Get

NSLIJ Labs
Medical
Get

BCM
Medical
Get

MedJournal
Medical
$1.99

IDF ePHR
Health & Fitness
Get

CareFlow PHR
Medical
$4.99

Independent
Medical
Get

Shared Med Journal
Health & Fitness
Get

InstantPHR
Health & Fitness
Get

DRC
Medical
Get

Elite South
Medical
Get

Test Report
Medical
Get

Resource Access Card
Health & Fitness
Get

Electronic Health Records

Electronic Health Records

PrimeMOBILE

Mediforms EMR

WISE-Touch

eClinicalTouch

gEHRiMed for iPad

Kareo – EHR, PM, Medical Billing

Care360 HD for Physicians and...

Epic Canto
Medical

drchrono EHR /

Advanced Mobile Doc - ADP...

Practice Fusion EHR / EMR

OneTouch EMR

iMedDoc-EMR

Medicapp Health Records - EHR f...

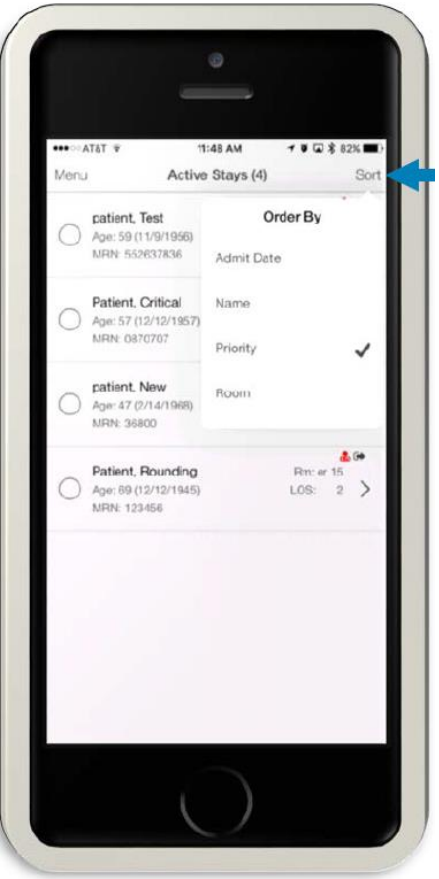
HealthMEDX

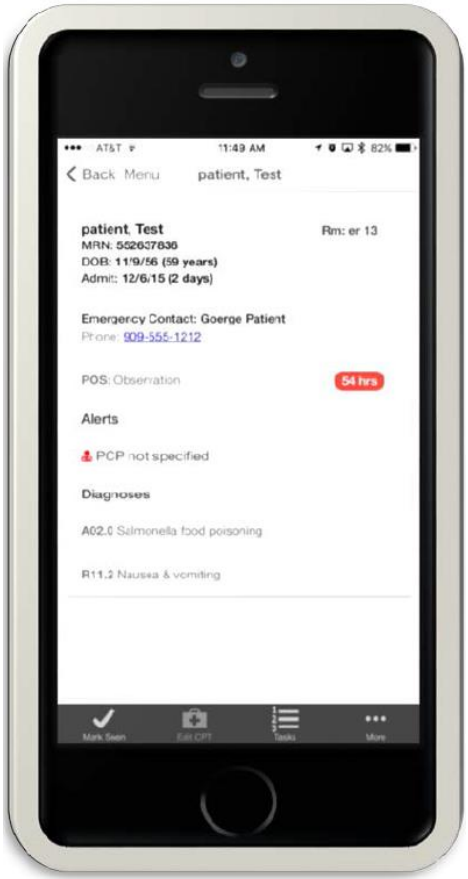
Improving Efficiency for Doctors

- Communication
- Information Retrieval
- Decision-Making
- Record-keeping
- Billing and Handoffs
- Patient Experience

Brio (Sound Hospitalists)

- Patient list and basic patient data
- Note patients seen, anticipated discharge or pending admission
- See diagnosis list and note level of service
- Can enter data and billing info on the go





Symbols

- Anticipated Discharge
- Avoidable Days
- New Admission
- Observation Place Of Service
- Pending Admission
- Primary Care Provider - None
- Transitional Care Services

Improving Efficiency for Doctors

- Communication
- Information Retrieval
- Decision-Making
- Record-keeping
- Billing and Handoffs
- Patient Experience

Enhancing the Hospital Experience

- Pilot at Boston Children's Hospital to help patients and families navigate their journey
- Given tablet to access the app which would:
    - Access test results: Patients and families can see the results of their laboratory and other tests displayed in both numbers and colorful graphics that are easier for non-clinicians to understand.
    - Access care plans: Patients and families can view what therapies and procedures clinicians have planned and their criteria for discharge.
    - Access the care team: Patients and families can send care-related questions to the clinicians providing their care; the questions are triaged by a nurse who either provides answers or sends the questions to the appropriate team member to address.
- The app has enhanced provider-patient communication and provided patients with a self-service mechanism they can access

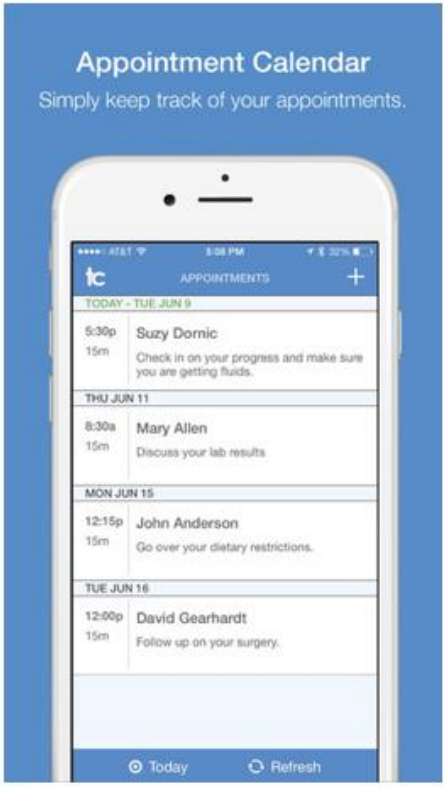
http://www.hfma.org/leadership/mobilehealth/#Enhancing_the_Hospital_Experience

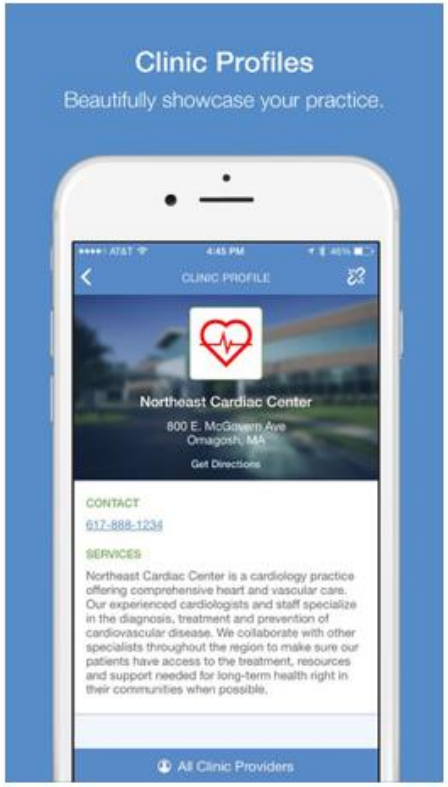
Telemedicine Apps

- Useful in Transitions of Care?

TouchCare

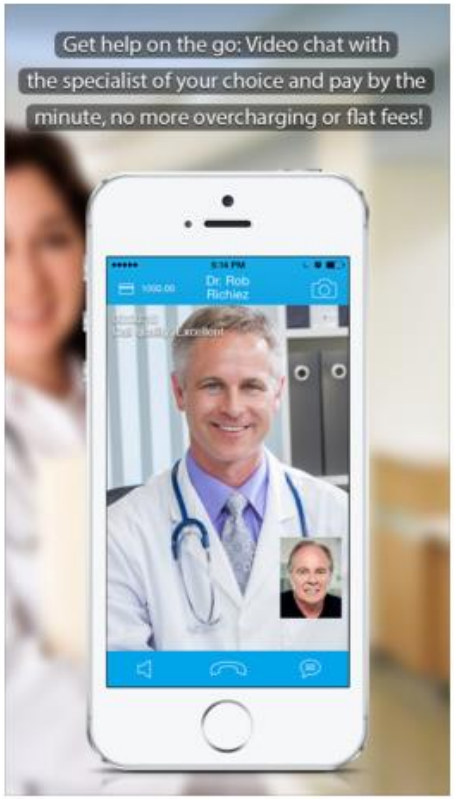
- Video chat with YOUR doctor
  - Supplement your office practice
  - HIPPA Compliant
  - Follow-up appointments, test results, etc.
  - Not set up to charge for time





VideoMedicine

- Video chat with doctor or psychologist
  - Specialists and primary care – HIPPA Compliant
  - Per minute charges
  - Prescribing in some states
  - Doctor chooses their rate and hours



Discussion

What Apps or Devices Improve your Professional Life?