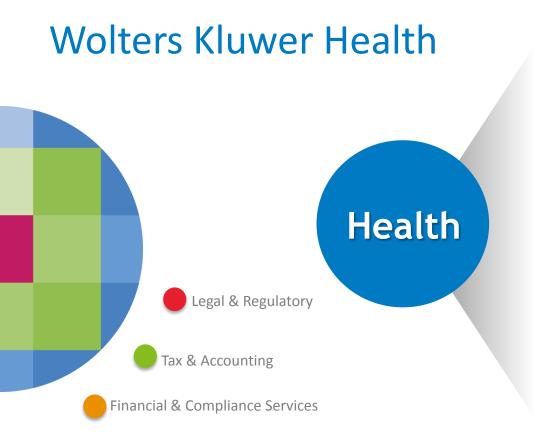
UpToDate -Clinical Decision Support



RI MA



Wolters Kluwer

Clinical EffectivenessDecision SupportUpToDate®Clinical Drug
InformationLexicomp®
Medi-Span

Health Learning, Research & Practice

Clinical Software Solutions

- Documentation ProVation MD
- Terminology Health Language Engine
- Surveillance Sentri7

Clinical Effectiveness

Our Mission: To be the global standard for solutions that measurably improve clinical effectiveness by helping healthcare providers deliver optimal care to their patients

Improve Quality



Reduce Cost



Enhance Patient Experience



UpToDate[®] Lexicomp[®] Medi-Span



UpToDate



What is Clinical Decision Support?





Doctors Have Clinical Questions

Unanswered clinical questions impact patient management decisions

Approximately **2 out of 3** clinical encounters generate a question

Physicians have approximately 11 clinical questions a day



Answering all clinical questions could change

5 to **8**

patient management decisions each day

Covell, DG. Ann Intern Med 1985; 103:596; Green, ML. AM J Med 2002; 109:218; Osheroff, JA. Ann Intern Med 1991:575; Ely, JW. J Am Med Inform Assoc 2005; 12:217; Gorman, PN. Med Decis Making 1995; 15:113.



UpToDate

UpToDate[®] is the **only** physician-authored, evidence-based clinical decision support resource associated with **improved outcomes** that helps healthcare practitioners improve quality and efficiency, and make **the best decisions at the point of care**.

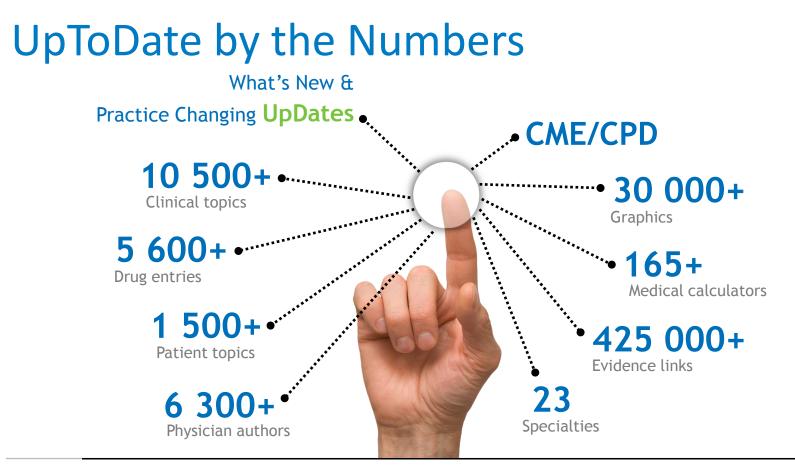




UpToDate's Global Mission

Improve the quality and effectiveness of healthcare worldwide by improving clinical decisions at the point of care.







Research Demonstrates UpToDate Impacts Outcomes



UpToDate is the most widely studied point of care clinical decision support tool. To date there have been over 80 studies that have looked at UpToDate as a tool to:

- Allow more questions to be answered faster
- Change decisions
- Improve outcomes

Wolters Kluwer



Use of UpToDate Associated with Improved Outcomes

Solucient studied the impact of UpToDate on length of stay, patient complications and patient safety

Impact



Significantly shorter lengths of stay

.167 days/discharge



Significantly lower complication rates



Significantly improved patient safety outcome rates



 Solucient maintains the nation's largest healthcare database, comprised of more than 26 million discharges per year from 2,900 hospitals.
 Int J Med Inform. 2008 Nov;77(11):745-53.

Researchers at Harvard University Find UpToDate Associated with Improved Outcomes

Use of UpToDate Associated with:

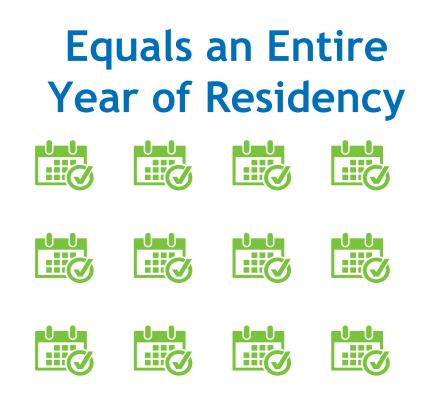
STRE DOSPETAL MEDICINE ORIGINAL RESEARCH Use of UpToDate and Outcomes in US Hospitals Permittees ID ARLINE Jo Dwg ND Amerika MI Spec **Improved Quality** Includedant directed that somethin two there wild want out printing for instructing out where $-2.1~{\rm M}_{\odot}$ -2.2 mm 2 2 2 0.001 for each light particular to the latter template had some im-Every condition on Hospital that was report to characteristic to the and kineter present annually use for 3 of the 6 considering to expense rearrange rate for 3 of the 6 considering to -5.7% to -5.8% rearrange animities 2 - 5.0% in templote one (process rationally shall) performan-OLICING Is serve he report of Gridden or **Quality Alliance Metrics** DESIGN Subsection of state many consider or the frequent locate Advance tomates entropy, analysis, we have been it, and the action Service Induced service of ultrappined Insurant. when a civie new beating insulate alone in Public the instant finite sector. sizes assessed when productions IN RESIDENCE AND IN CONTRACTOR OF DEVICE AND tion instru cutions due to beat La thobate page and grant or turnentstand. MEND, PERSON, The reducted in other of state multiple CONCURRENCE for faced is very small for consult meta-static between one of \$200,000 and reflects and of state towards adjusted montally rises, and bet Shorter Lengths of Stay successive the lower and party in advance in frequency Responses to the transit that patients associated to reception where the characteristic devices the phase of the characteristic devices of the characterist safe party region of heat is the events, he methodowy, these findings may assume that remplates ands as it as for Tables out in result in improving it mone of response bisadeous permanentation of all 372,000 days over 1 year Recipity of Changing Street five hardst information radionilation hald one passing for improving the studies and officially of manifesting. One commonly used health information exercises of incodeday, buttons the sur transmit classed spectrum, and change management mention." Economic, solution plans changes limit to advantage to computational shread descendings reads, agreement (CRM) accurates, which provides chemicals **Lower Mortality Rates** rant opportunities to played industry of the second and motor or arises and someously spale of class Given the segret word to express hold the quarty and effectively of brokinger, understanding whether of observation about major readed topols in fer-mone of one. Works tentour des citencies often Collaboration for the proceed to bepare advances of new process from particular out, which go regula comparison from particul comments." The start ability of memory or colored change operation com-11,500 lives over 3 years Theories, we examined adaption the year of \$207. are a large maps, or closed decision indice and that the process with lower rol allowed would be used at the second second being bei ness in classified quelly proper metrics. Firstlaw, we statistics in one of the root widely and communiangle to describe whether the impact of Splitcher non personale to present in seven subary of bullerad People, by conversed whether the densities of her of http://www.ene.com/aid/with/herail.com/aid/ In others demonstrated that down apparent represent ARTHODS. **ADDA** for round approach was to ensure the selected to present the follow, and Y main someway, etc. fease length of mer, rak adjusted researcher, and sprawny on mandari studier present manual in a period lines 2004 to 2008. We want & approach Include State of Street Advantation in Conto be an index provid indexedual relation of Splitscharp are Marin abhorase show non adar For, we used a beginded mobility approxi-



Using UpToDate Increases Medical Knowledge

20 Minutes a day







McDonald, F, Zeger, SC, Kolars, JC. Factors Associated with Medical Knowledge Acquisition During Internal Medicine Residency J Gen Intern Med 2007.

Economic Impact of UpToDate at Salford Royal NHS Foundation Trust

Forrester Research found Salford Royal NHS Foundation Trust (SRFT) recovered the costs of UpToDate in 90 days

Benefits Included:

- Staff productivity
- Diagnostic test efficiencies
- Improvements in the quality of care







Working with UpToDate as a partner has been my best experience in 25 years. It is the best company in the content industry and has very efficient processes to keep their customers and partners. Their marketing area is the best in the industry and we have more support than any other company offers their partners. UpToDate is quality in product and service!!!

> Marco Antonio•Bringas Meléndez Director, Infoestratégica



Main benefits of UTD Anywhere access

• Every worker of the institution can have the possibility to set up their own account for UpToDate and have access:

via username and password from any kind of internet connection

via the mobile application (iOS; Android and Windows)

- In Europe: Mutual recognition between the AMA and UEMS-EACCME®
- Knowledge of the latest medical information helps clinicians continually refresh their medical education by staying current on medical advances
- Doctors can avoid adverse events by consulting UpToDate.
- Doctors can often find their own answers in UpToDate in relation to other specialties and avoid the need for consultants.
- UpToDate is the only clinical decision support system associated with improved outcomes.
- For more information about the studies to verify the below statements please see at <u>www.uptodate.com/research</u>



Subscriber Self-Registration

End-user process

Registration

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- No client work required
- Easy to find links to register

- User registers and create own credentials
- Email confirmation sent to user
- Log in directly to UTD
- Mobile On-Demand app access

User Access



User Verification



- 90 days to verify affiliation
- If user "verifies" their affiliation, time resets
- In app/email message after
 25 days reminds users
- Remote access disabled if user doesn't re-verify 17



UpToDate Anywhere Mobile Applications:

Available for On Demand Mobile Apps (iOS, Android and Windows 8)





Clinician Registration for UpToDate Anywhere

UpToDate®		► Languages Help
		Welcome, Uptodate Log In / Register
▶ Contents		Patient Info What's New PCUs Calculators Drug Interactions
	New Search: Search in another language All Topics Man the UpToDate mobile app? Register Now	Link to Log-in/ Registration Page
Subscription and License Agreement Support Tag		🛃 💟 in 🚟



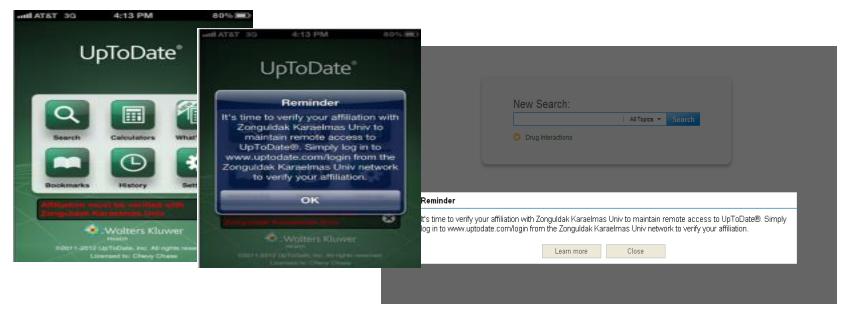
Easy Registration Process

UpToDate®						► Languages Help
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Passw	ord:	Last Name		Password		
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	Log in help	ZIP/Postal Code				
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Subscription and License Agreement	Support Tag					🛃 💟 🛅 📷



Communication with Clinicians

In-application & email messaging reminds clinicians to verify their affiliation with your organization to maintain remote access rights





UpToDate Mobile App Awards

Best Medical Information Solution

SIIA CODiE Finalist (February 2013)

- Best Solution Integrating Content into Workflow
 SIIA CODiE Finalist (February 2012)
- Best Apps in Publishing EContent Magazine (April 2012)
- Voted one of the Top 10 Medical Apps Modern Healthcare (December 2013)
- Featured in National Newspapers
 The Wall Street Journal (November 2013)
 The Daily Telegraph (UK, December 2013)





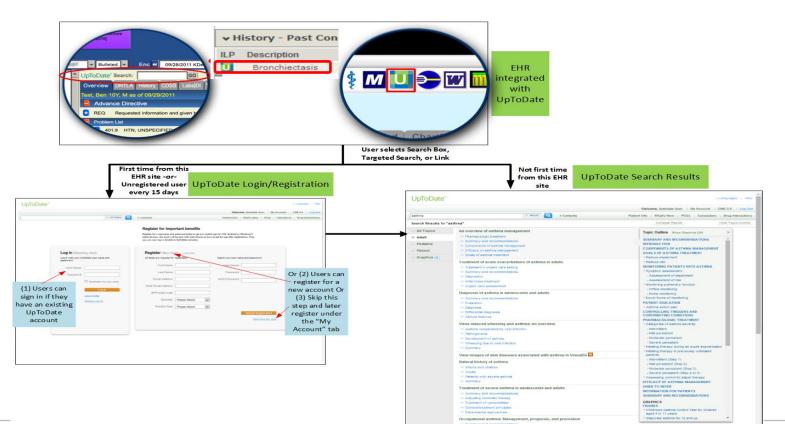
EContent

Modern Healthcare

The Telegraph



Clinician Workflow



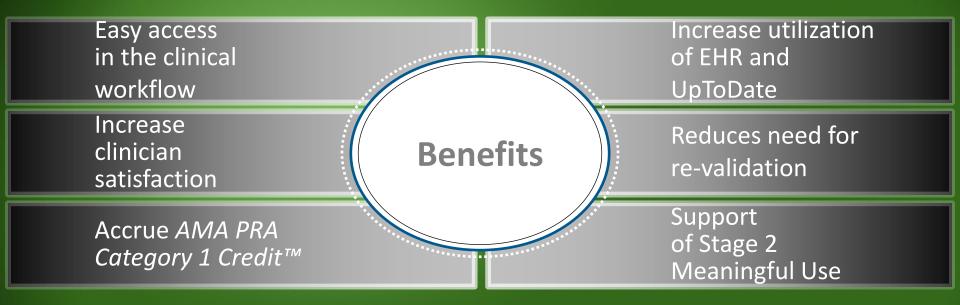


UpToDate Search Box

Name: Fred O'Smith	Gender: Male V Age: 35 Years V
Height: 234 cm	Weight: 60 kg Healthcare Proxy:
Patient ID# 2394587-3987	Doctor: Lee, Susan
	ADMISSION Rx ORDERS CONSULT HISTORY REPORTS
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Tasks	GENERAL INFORMATION
Charges	Date: 12/27/12
Homebase	Staff taking information: Ortiz, Joe UpToDate adult hypertension Q
User Mgmt	Chief complaint: chest pain
Schedule	
Reports	TRANSPOR INFORMATION
Stimulus	EMS company: Johnson Ambulance Unit #: 6 Transport type: EMS 💌
Dashboard	Mode of transport: stretcher V Pickup: home V Accompanied by: family V
	VITALS
	BP: 120 / 80 Position: lying V Location: arm V
	Temperature: 98.1 Method: oral
	Pulse: 80 Respiration: 20 Pulse 02: 100 Rhythm: NSR 💌
	Taken by: Anderson, Ronald
	Time taken: 12:41 pm 💌
	COMMENTS
	Call private physician upon arrival.



Realize Benefits of Embedding UpToDate in the EHR





Conclusion

Clinicians have questions every day in the course of routine patient care

UpToDate provides answers to those questions, impacting decisions

Changing decisions improves patient outcomes





Questions

Thank you

