

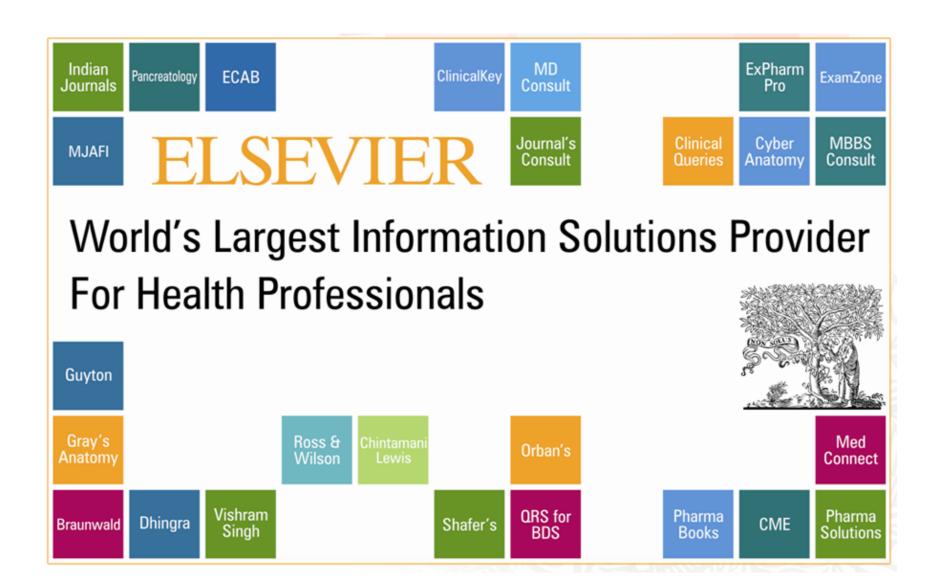
# Creating better healthcare outcomes through education and knowledge

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Managing Director

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#### **About Elsevier**



#### What we do?

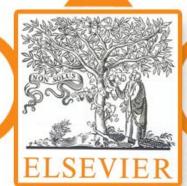




Owns about 40% of worlds scientific/researched content. Is 4th largest company in paid content after Google/T-Mobile/Apple.



Serves 30 million scientists, students and professionals



Elsevier takes its name from the original House of Elzevir, a Dutch family publishing house founded in 1580.

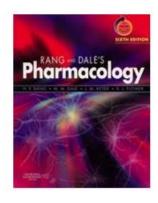


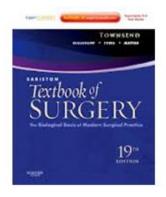
Partners with global community - 7,000 journal editors 70,000 editorial board members 300,000 reviewers 600,000 authors

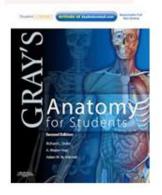


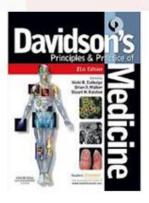
Roots are in journal and publishing, fostered peer review process more than 130 years

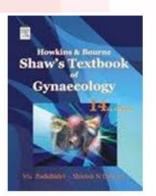
#### **Our Global Range of Products**























#### **Vision**

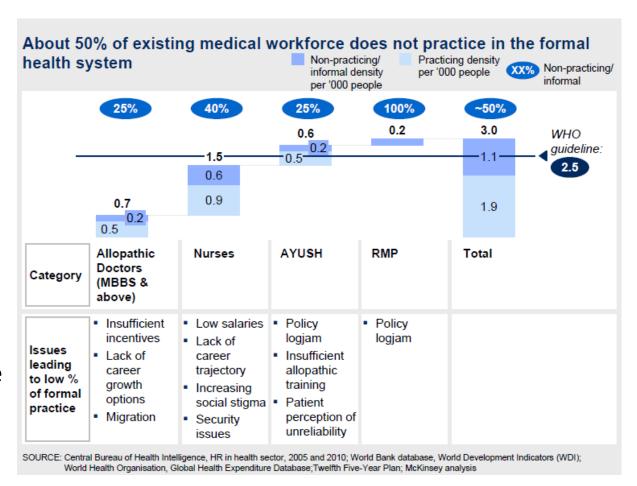


"We provide healthcare organizations, professionals and their patients world-class content and technology solutions that optimize decisions and actions to improve quality, safety and cost effectiveness of care."

#### Healthcare in India: Issues and Challenges

#### **Workforce Shortage**

- India had 1.7
   trained allopathic
   doctors and
   nurses per 1,000
   population, in
   year 2000; WHO
   recommended
   guideline of 2.5
   per 1,000
   population
- About 50% of existing workforce does not practice in the formal health system



#### **Challenges in Medical Education**

- Faculty requirement is short by around 33%, with attrition of 10-15% yearly (similar situation in dental and nursing colleges)
- The gap between demand for quality teaching, standardized content and available resources is widening due to lack of faculty and teaching resources- Ratio of teacher/ students decreasing from 19/100 to 11/100

## Challenges in Rural Healthcare NRHM Report 2009

- Rural health centers are critically short of trained medical personnel
- Nearly 8% Primary Health Centers don't have a doctor while nearly 39% were running without a lab technician and about 17.7% without a pharmacist
- Shortfall of 70.2% specialists at the Community Health Centers
- About 59.4% of surgeons,45% of obstetricians and gynaecologists,61.1% of physicians and 53.8% of pediatricians were found to be vacant. Moreover there is a shortfall of 70.2% specialists at the CHCs.

#### **Challenges in Healthcare Delivery**

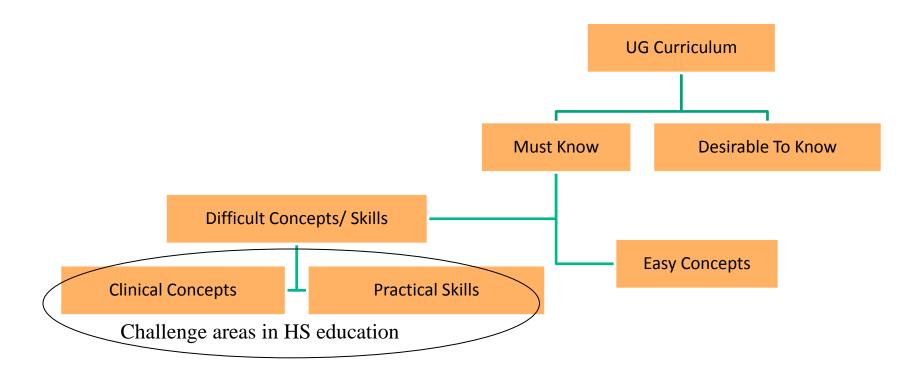
- Lack of adequately trained healthcare workers
  - Doctors, nurses, dentists, paramedics
- Rapid growth in new education institutes
  - However, quality of teaching compromised due to lack of well trained and experienced faculty
  - Has an impact on the quality of graduating students with lack of exposure
- Eventually, this leads to less than optimal healthcare outcomes
- How can this be addressed?

#### Creating better healthcare outcomes

- By improving the quality of education both at the undergraduate level as well as practitioner level
- By providing teaching, learning and research tools online
  - For use by faculty, students as well as practitioners
  - For use by healthcare workers in remote areas by referring to the same content

# Creating better healthcare outcomes in rural India

#### **Structure of UG Education**



#### Possible Solutions to the Challenges

Challenges	Problems	Solutions
Lack of human resource  ❖ Declining Faculty Student Ratio  ❖ Lack of proper training in colleges	Visualisation of concepts	2D/3D Animation, Videos, Graphic
❖Inexperienced Faculty	Integration between different topics	Videos, Animation, Simulation, Slide deck
❖ Lack of standard teaching aids	Non Availability of ongoing assessment	Continuous assessment modules
Lack of practical exposure  ❖ Restriction on animal experimentation  ❖ Inadequate patient load in newer colleges  ❖ Lack of adequate cadavers	Lack of practical Skills	Simulation Tools, Procedural Videos, Interactive Animation





HOME COURSELIST EDITORIAL BOARD FREE TRIAL



Access most credible and comprehensive content which is aligned to your curriculum



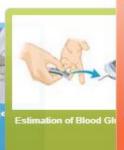






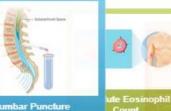








Arterial Blood Gas Sampling Medicine, 03-08-2012



Lumbar Puncture



TESTIMONIALS

"Clinical Learning will support the transformation from traditional instructor-centered teaching to digital and interactive lea...

Dr. Lalit Singh

view all »

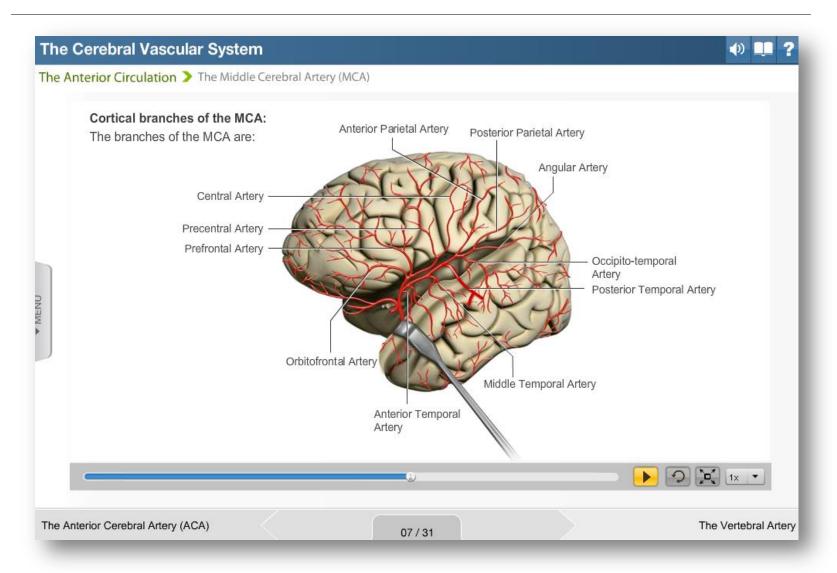
#### **Clinical Learning**

- Help bridge the gap between demand for quality education & severe lack of availability of faculty, skills & teaching aids
- ❖ A Web Based, e-learning tool for use by colleges in order to supplement teaching/ learning process.

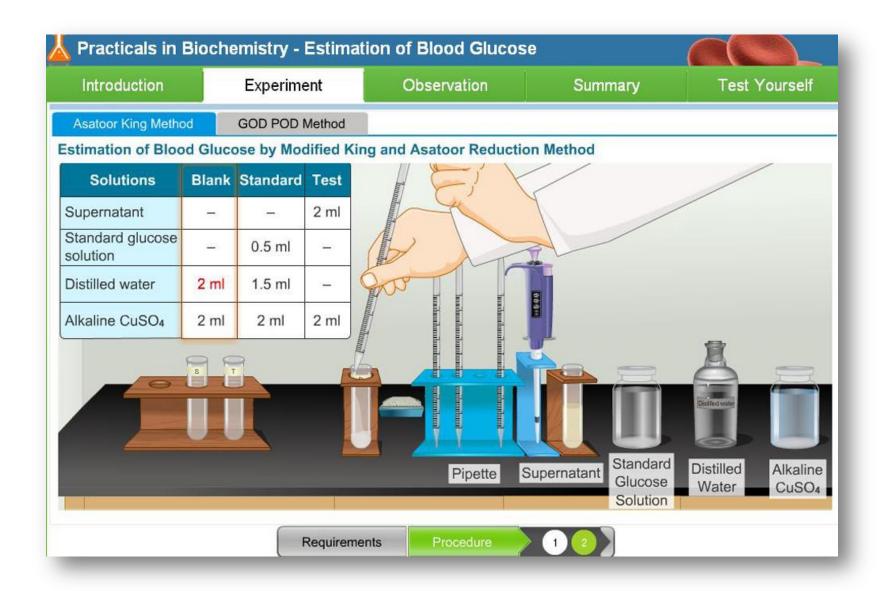
#### Modules with:

- 2D / 3D Animation
- Graphics
- Simulation
- Videos
- Class room assessment
- Slide Deck

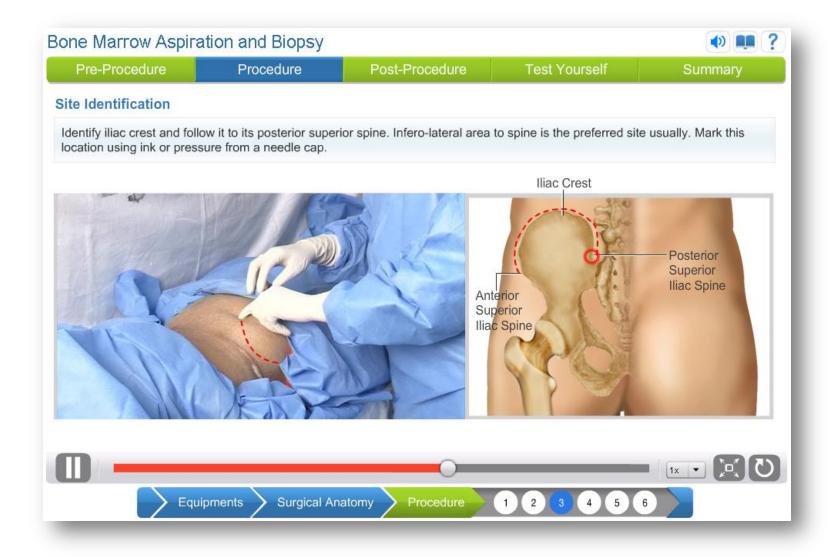
#### Interactive, credible, comprehensive, peer-reviewed content



#### Simulation tools to aid teaching and learning of clinical and practical skills



#### 2D, 3D animations, videos and graphics



#### **Advantages**



- Dashboard to Monitor & Track Students' Learning Performance
- Easy to Use and Implement Solution for Clinical & Practical Needs
- Ensure Consistency and Standardization in Education



- Engage Students
   using Interactive and
   Effective Multimedia
   Content
- Create & Customize your Own Courses using Simple Authoring Tools
- Manage Students'
   Performance &
   Create Assessments
   for Students



- Revisit Practical and Clinical Skills Anytime, Anywhere
- Study and Access
   Interactive Courses
   at your own Pace
- Dashboard to
   Interact with
   Teachers and View
   your Progress &
   Performance

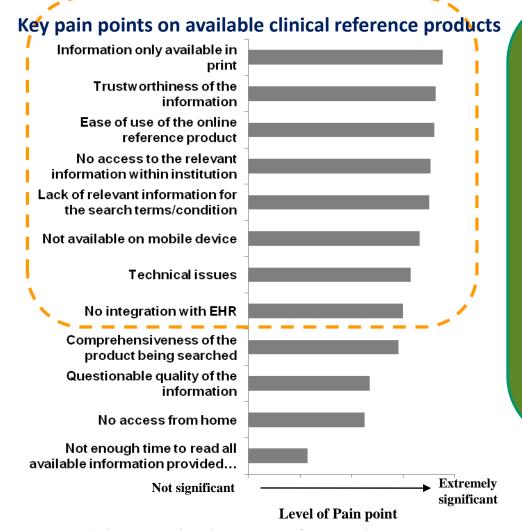
# Creating better healthcare outcomes for practitioners

#### **Challenges Faced By Practitioners**

- Availability of Information
- Lack of Relevant Information
- Accessibility
- Trustworthiness of the Sources of Information
- Comprehensiveness
- Lack of available time to access

#### Significant Pain Points With Available Clinical Reference

**Products** 



**Key Findings** 

- Trustworthiness of content is paramount; in qualitative interviews its clear <u>currency of content</u> is critical component and that doctors "know" good sources when they see them
- Doctor's are widely frustrated by <u>the</u> <u>lack of relevant information found using</u> <u>current search mechanisms</u>
- Access to the most trusted and relevant content is often difficult for physicians
- Physicians require must-have clinical information to be <u>available via multiple</u> <u>platforms</u>: online and increasingly via mobile access

Source: 2010 Online survey, based on responses from 482 physicians

### Three Parameters Which Physicians' Want To Be Addressed

- Comprehensive: Physicians frequently check a second source to get the full answer, because not all conventional clinical search engines are comprehensive.
- Trusted: Physicians often double-check answers, because not all conventional clinical search engines are trusted.
- Fast: Physicians waste time looking for relevant clinical answers because not all conventional clinical search engines deliver speed to answer.



#### Comprehensive

800+Books

500+ Journals

9000+ Videos



#### **Trusted**

All information backed by



30 Million

Healthcare Professionals, Scientists and Students

#### **Speed to Answer**

Elsevier Merged Medical Taxonomy (EMMeT)

SMART

#### **Elsevier Smart Content for Smarter Searches**

- ClinicalKey is the only clinical tool with Smart Content, ensuring it delivers answers that are more clinically relevant than those provided by conventional clinical search engines
  - Smart Content is created when searchable content is mapped to a taxonomy classifying the meaning of terms in the content.
  - ClinicalKey creates clinical Smart Content by mapping searchable journal, book, image, and video content to Elsevier's proprietary taxonomy EMMeT (Elsevier Merged Medical Taxonomy)
  - \* EMMeT refines and combines broad taxonomies to create the single most clinically useful taxonomy.
  - \* EMMeT understands the meaning of searchable content allowing ClinicalKey to discover related content missed by keyword searches on conventional clinical search engines.
  - Smart content ensures ClinicalKey adapts to meet physicians' specific needs.

#### **ClinicalKey Advantages**

- Draws Answers From the Largest Collection of Clinical Resources.
- Workflow Alignment Reduces Search Time and Increases Patient Care Time
- Information Found on ClinicalKey Is Easily Shared
- A ClinicalKey Subscription Can Help Improve Patient Care at Hospitals of Every Size

# Creating better healthcare outcomes for nurses

#### **Educating Nurses: Skills & E-learning**

#### Interactive Skills & Procedures Protocols

- Enhance and improve protocol consistency, procedural outcomes and skills training throughout the organization
- Includes nursing skills and coverage of six procedureintensive medical specialties.
- Achieve professional excellence and deliver superior patient care at point of care
- Interactive, professional learning experiences, embracing best practices
- Absolute confidence nurses have what they need to deliver optimal patient care



#### **Nursing Consult: Nursing Reference DB**

- A comprehensive reference companion for the practicing nurse
- Contains:
  - Over 30 leading nursing books
  - Over 30 leading full-text nursing journals
  - Evidence-Based Nursing Monographs
  - Drug information and calculators
  - Over 250 Practice Guidelines
  - 8,000 Patient Handouts
  - "Best Practice" Clinical Updates
  - Dictionary
  - Nursing and Medical News



#### **Nursing Skills: Professional Training**

- A complete online solution for skills reference, learning and competency management for nurses
- Uses texts, videos and animations to teach, plus tracking and self-assessment
- Can be customized by institutions to suit local needs.
- Can be integrated into institutional e-learning platforms
- Enhanced Integration with NURSING CONSULT



#### **Mobys Index: References & DB**

- The most robust nursing and allied health journal abstracts and indexing database available.
- Easy, elegant interface
- Extensive coverage
- Link to local holdings
- Powerful thesaurus
- Citation currency
- Cover-to-cover indexing





# Creating better healthcare outcomes for Point of Care & Drug Decision Support

# **Educating Point of Care: Drug Decision Support**

- Clinical Pharmacology
  - Drug reference database
  - Web and handheld versions
  - Focus on hospital, pharmacy markets
- Alchemy
  - Drug decision support, integrated into EHR systems
  - Includes interaction tools
  - Provides appropriate prescribing info based on patient parameters
- eMPOWFRx
  - Handheld e-prescribing system
- ToxEd
  - Toxicology database
- US-focused products



promptly report any signs of bleeding to their physician, including pain, swelling, headache, dizziness, weakness, prolonged bleeding from cuts, increased menstrual flow, vaginal bleeding,

salicylate products. View References

Continue Rx D/C existing warfarin Cancel Rx

nosebleeds, bleeding of gums from brushing, unusual bleeding or bruising, red or brown urine, or red or black stools. Patients should also be counseled to avoid any other over-the-counter

#### **Drug Decision Support Solutions**

#### **Drug Decision Support & e-Prescribing**

- Evaluate a patient's complete drug regimen
- Submit prescriptions electronically
- Integrate patient data and drug information and adhere to national, state, and payer-based initiatives



#### **Thank You**