
Securing Clinical Knowledge: Balancing Accessibility, Security, and Privacy in Dental Education

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SKM2004

Overview

- Introduction of HCO to SKM
- Clinical Knowledge characteristics
- Issues for SKM in the Dental School
- Implementation in the Dental School
- Issues for Future Research

Introduction of HCO to SKM

- Previous focus on data creation, acquisition, storage, and transmission (Alavi & Leidner, 1999)
- Protection of knowledge has received little attention in research (Bloodgood & Salisbury, 2001)
- 2073 KM practitioners - Security issues ranked 10th among KM practitioners (King, 2002)
- 307 KM - Little or no focus on security by knowledge managers (Asllani & Luthans, 2003)

Introduction of HCO to SKM

- Limited foray into KMS
- Biggest challenges
 - sharing data across multiple systems and platforms
 - setting standards
 - Improving accessibility (Bailey, 2003)
- Along comes HIPAA (1996)
- New focus on Privacy (2003) and Security (2005)



Clinical Knowledge Characteristics

- Knowledge is different; KBV and Competitive Advantage (Grant, 1996; Salisbury, 2003)
- Competitiveness hinges on management of intellectual resources (Grover & Davenport, 2001)
- Effective knowledge management requires a knowledge infrastructure and architecture – including security (Gold, et al., 2001)
- Clinical knowledge is neither unidirectional or linear
- Various users with the demand for more access, more summaries, more audits, more analytical tools (data mining)
- Current focus is still on database and data security (Damm & Schindler, 2002)

SKM Issues in the Dental School

UB University at Buffalo
The State University of New York HIPAA

Home Contacts Site Map

Faculty-Students

Up UB HIPAA overview UB declarations Researchers Faculty-Students HIPAA Training

HIPAA and Faculty / Students

UB Covered Entity Status

Of the various student and professional programs associated with schools at the University, only those associated with the School of Dental Medicine occur within a University at Buffalo (State University of New York) HIPAA covered function. The programs in the schools of Medicine and Biomedical Sciences, Pharmacy, Nursing, and Public Health & Health Professions as well as the other schools at UB are not within a covered function at the University and are not required to comply with HIPAA. More information about UB covered functions can be found [here](#).

Student Programs

Many of the programs at the University send students into covered entities. In fact, the University has approximately 3,000 clinical affiliation agreements with various entities associated with such programs. Within any of these affiliates who are covered entities, the students will be bound by the HIPAA policies and procedures of those affiliates.

HIPAA defines students within a covered entity as part of that entity's workforce and requires the entity to train them in the HIPAA policies and procedures specific to that entity. In order to reduce that burden for the covered entities, UB will be following the SUNY recommended approach of providing a general introduction to HIPAA to all students entering such facilities. The format of that training is up to the individual programs. On-line, web-based training is available for use by the University community ([more information](#)).

In addition students and faculty should never remove individually identifiable health information from such facilities unless specifically authorized, in a HIPAA appropriate fashion, by the subject of that information. De-identified information may be removed for educational purposes. See this page for more information as to what constitutes [individual identifiers](#) under HIPAA.

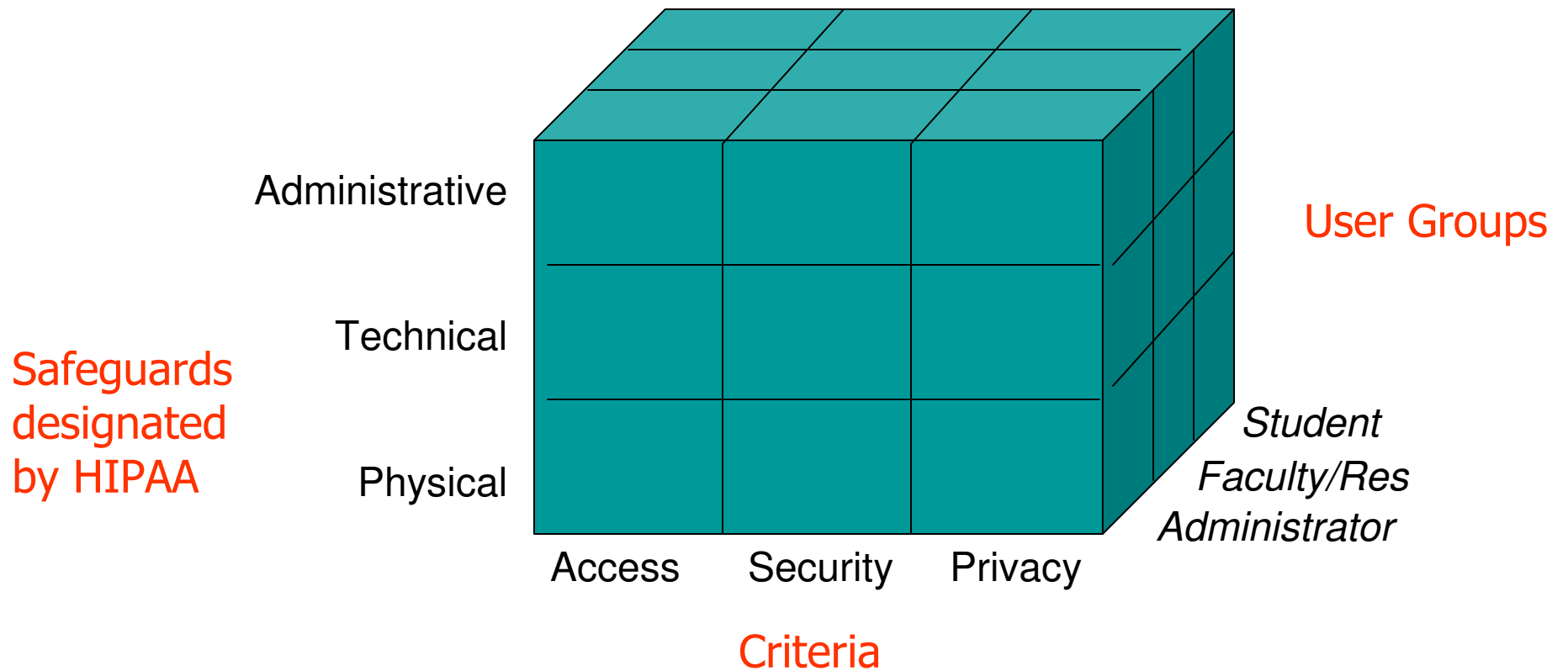


SKM Issues in the Dental School

- Clinical Information Management System (CIMS)
- 2005 Security Deadline
- Patient record is primary vehicle – broad compilation of data and information
- Goal:
 - Quality/Effective Dental Care
 - Balancing access with security & privacy
 - Teaching School



Implementation in the Dental School



SKM Issues in the Dental School

- More on Clinical Information Management System (CIMS)
 - Central repository
 - Internal development, Client-server (since 1998)
 - Security: electronic, physical, human
 - KMS functions
 - Tracking student progress
 - Evaluating outcomes
 - Summary financial reports
 - QA Analysis
 - EMR/EHR (future)
 - Digital radiographs (future)



SKM Issues in the Dental School

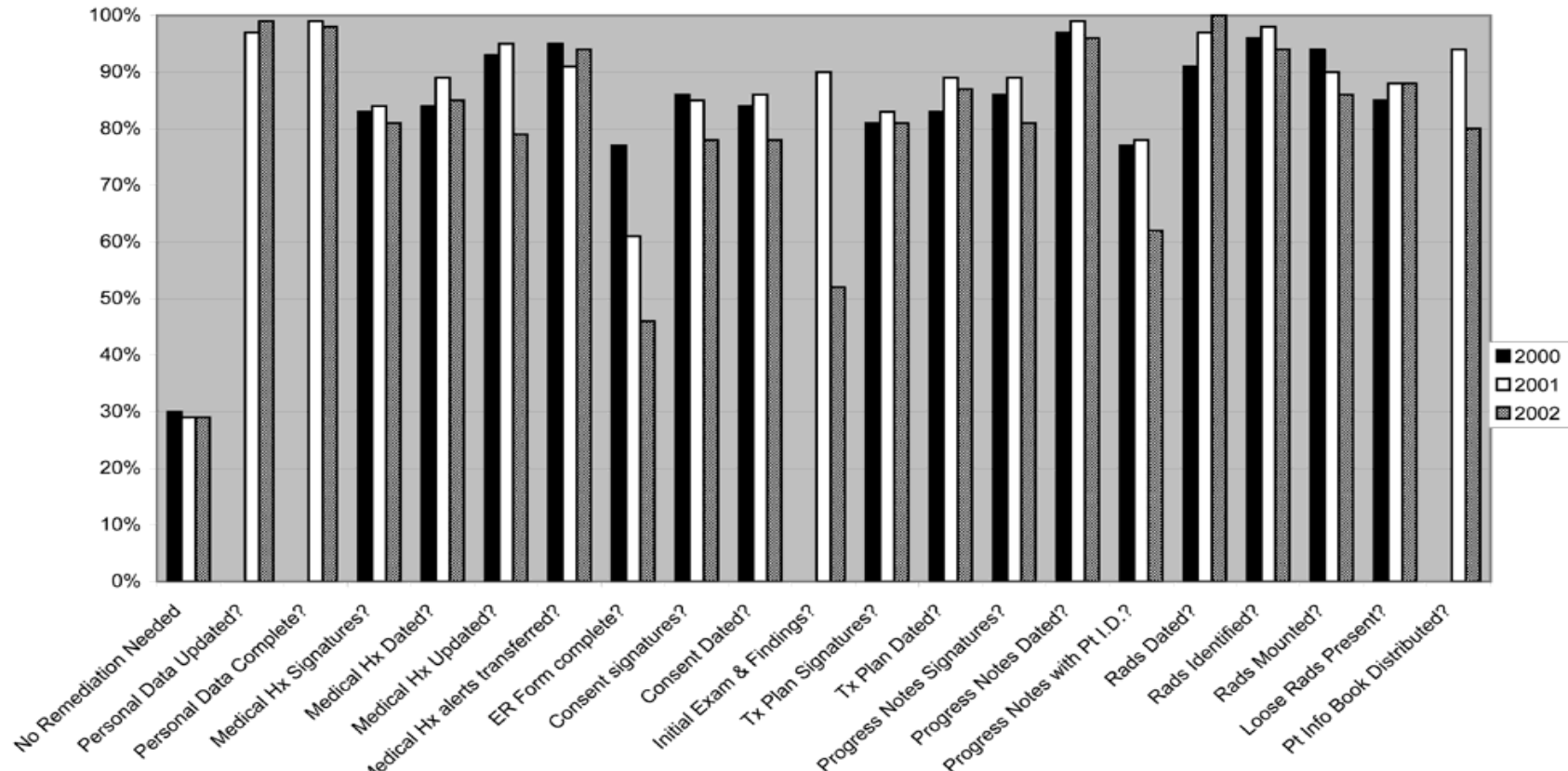
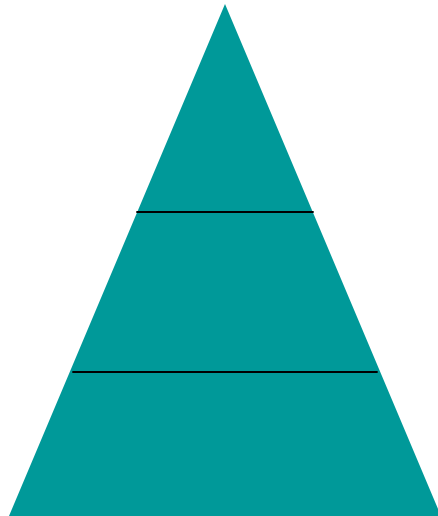


Chart Audit Summary
 2001 data based on 889 (41%) remediated of 2185 total audits
 2002 data based on 1180 (49%) remediated of 2388 total audits



Implementation in the Dental School



(Schou & Trimmer, 2004)

Technology

Operating Policies & Procedures

User Awareness & Training

Firewalls/SSL/Citrix
Remote Access

Written

Implementation in the Dental School

- Continuous Training
- Continuous Risk assessment
- Contingency planning

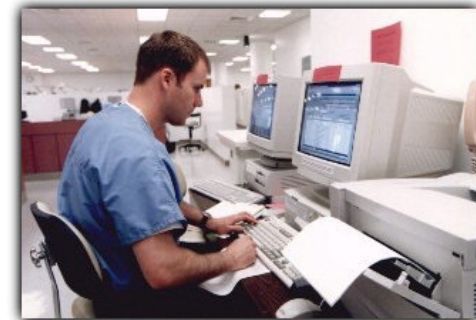
Implementation in the Dental School

- Continuous Training
 - HIPAA 101 + Refreshers
 - High risk Areas
 - Weakest link (Smith, 2003) – Example!
 - Compliance through:
 - Random audits
 - Education
 - Bulletins/Monthly Clinic Newsletter
 - Online quizzes
 - Changing the CULTURE!



Implementation in the Dental School

- Continuous Risk assessment
 - Four areas
 - Physical assets
 - Networking
 - Software
 - Business/clinical processes
 - Gap analysis
 - Random audits (time consuming)



Implementation in the Dental School

- Contingency planning
 - Initial assessment
 - Linked to training
 - UB guidelines vs. state guidelines
 - On a case-by-case basis



Future Research

- Culture change – “culture of security”
- External influences
- New technology (part of the solution)
 - Single-Sign-On (SSO): security vs ease of use
 - OASIS/HL7/ASTM/???

Example

End of the School Year Picnic
To Benefit Alan J. Gross Fund
Wednesday, ~~June 2~~, 2004 *Aug. 18*
in the Quad outside Squire
burgers, dogs and soft drinks
\$5- good for 2 burgers (or 2 dogs, or one of each)

1st burger/dog	2nd burger/dog
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Example

Mrs. Smith - 2:00 Tues. - Extraction 836-0525
John Campbell - 11:00 Wed. - Perio 691-6681
F. Lippman - 1:00 wed - Amalg. 829-2056

Questions

