

CIS Users Satisfactory Survey

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QEH



Implementation of CIS in QEH

- Multidisciplinary CIS team
 - Doctors and nurses
- Careful planning of implementation
- Close collaboration with HA ITD and the Vendor
- Support from CIS team
 - Dissemination of information
 - FAQ
 - Training materials



Implementation of CIS in QEH

- March, 2009
 - Installation of CIS workstations
- May, 2009
 - Download of data from ePR to CIS
 - Use of CIS and fade out of shock charts and other documents in phases
 - Upload of APACHE data to CMS



Implementation of CIS in QEH

- 2010
 - Viewing of radiological images in CIS workstations
 - Download of allergy data from ePR to CIS
 - Access of CIS from CMS workstations



User satisfaction

- Physicians attributed their satisfaction to patient care benefits
 - Improvement of clinical communication
 - Improvement of medical record keeping and decision making
- Overall satisfaction was correlated most strongly with ease of use, productivity or impact on patient care



CIS User Satisfaction Survey

- Survey Period
 - 28 May 2010 – 6 June 2010
- Subjects of Survey
 - All staff in ICU using CIS during the survey period



Objectives

- To evaluate the perceived ease of use, usefulness of CIS in the ICU
- To evaluate the service quality of the CIS service provided by the vendor
- To identify areas for improvement on the respective area of CIS



Survey Form

- Section A: User characteristics
- Section B: The frequency of CIS use
- Section C: Perceived ease of use
- Section D: Perceived usefulness
- Section E: Service quality
- Section F: Comment



User characteristics

- A total of 73 forms returned
- Sex
 - Female : Male 50: 21 (2 NA)
- Streams
 - Doctors: 10
 - Nurses: 57
 - Others: 2



User characteristics

- Departments
 - 89% from ICU
 - 11% from others: anesthesia, physiotherapy, medical, neurological, ICT
- Working experience
 - 68% working for more than 5 years
 - 32% working for less than 5 years



User characteristics

- Time spent on computer after work per day
 - < 1 hour: 20%
 - 1-3 hours: 58%
 - 3-7 hours: 12%
 - > 7 hours: 10%



The frequency of CIS use

- Rating of frequency
 - 1= very rarely
 - 2= rarely
 - 3= rather rarely
 - 4= occasionally
 - 5= rather frequently
 - 6= frequently
 - 7= very frequently



The frequency of CIS use

- 93% respondents are frequent users of CIS (rate above 4)
- 49% respondents occasionally and 31% frequent encounter CIS connection problems
- 39% respondents occasionally and 27% frequent encounter CIS data mapping problem



Perceived ease of use & Perceived usefulness

- Rating
 - 1: strongly disagree
 - 2: disagree
 - 3: mildly disagree
 - 4: neutral
 - 5: mildly agree
 - 6: agree
 - 7: strongly agree



Perceived ease of use

- CIS is easy to use
 - 56% agree vs 29% disagree
- Interaction of CIS is clear and understandable
 - 54% agree vs 28% disagree



Perceived ease of use

- CIS is easy to learn
 - 60% agree vs 20% disagree
- CIS is easy to be skilful
 - 49% agree vs 20% disagree
- CIS is flexible to interact
 - 43% agree vs 27% disagree



Perceived Usefulness

- CIS improve work effectiveness overall
 - 64% agree vs 16% disagree
- CIS improve quality of care in workplace
 - 49% agree vs 22% disagree



- CIS improve record maintenance overall
 - 60% agree vs 9% disagree
- CIS accomplish task more quickly
 - 49% agree vs 26% disagree



Perceived Usefulness

- CIS maintain confidentiality better than paper
 - 38% agree vs 30% disagree
 - 32% neither agree nor disagree
- Prefer CIS to paper
 - 52% agree vs 15% disagree
 - 32% neither agree nor disagree



- CIS is useful
 - 56% agree vs 12% disagree
 - 32% neither agree nor disagree



Service Quality

- 73% rate the quality of the hotline support is acceptable or above
- 69% rate the speed to repair is acceptable or above
- 69% (supertrainers) rate the CIS training by Philips Co. is acceptable or above



Service Quality

- 69% rate the CIS training at workplace is acceptable or above
- 86% rate the availability of PC in workplace is acceptable or above



Other comments

- Add portable CIS
- need to negotiate with Pharmacy to accept drug order from CIS
- Doctors of other specialties not willing / co-operative in using CIS
- Only one column is the printed version
 - Cause nurse confusion
- Cannot delete whole sheet if wrong entry



Recommendations

- Disseminate the findings to all frontline nurses
- Disseminate the findings to Philips Co to reduce the data mapping problems, and the printed format is difficult to read
- Strengthen the training in workplace, especially for the new users



Recommendations

- Simple guide or cute card to encourage and facilitate them to use CIS
- Liaison with Pharmacy to explore the possibility to use CIS to print out or replace MARS to reduce transcription error and save time
- Regular assessment on the difficulties encountered by CIS users



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