New World of Neurology in an Electronic Age

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Disclosures

None

Objectives

To discuss

- Where we are now: WFN eLearning survey
- eLearning in neurological
  a) Education
  b) Clinical care
  c) Research

WFN eLearning Survey

- Carried out by eLearning Task Force of WFN Education Committee
- Brief questionnaire sent to all WFN member societies (n=113)

Gouider, Freedman, Patterson. World Neurology, February, 2012

eLearning Survey: Response Rate

Asia	South America	Europe	North America	Africa
18	6	18	4	8

	No Response	Response	Percent Response
Developed countries	31	13	29.5%
Developing countries	30	39	56.5%

Greater response from developing countries suggests greater need in these countries

Selected Survey Findings

- 79.6 % of members of WFN societies and institutions have internet access
- 60% of societies have a website
- 54% of societies have journals but only 63% of these have journal online
- 44.9% identified cost as barrier to access eLearning and telemedicine

Selected Survey Findings

- Great interest in CME using eLearning
- Interest for increasing eLearning opportunities may be higher in developing countries than in developed countries
- Infrastructure for developing eLearning and telemedicine programs exists in many countries. Cost and time constraints are potential barriers.

Selected Survey Findings

- Need
  a) Leaders with abilities to initiate eLearning programs
  b) Experts who can create the program content
- Countries want focus for eLearning and telemedicine to include movement disorders, epilepsy, and stroke

Key Messages

- Not in a global electronic age yet
- Developing countries need more e-resources

But

- Advances are being made
- Need to anticipate growing impact of electronic age on neurology
- Need to maximize the educational, clinical and research role of e-activities

Education

What will classroom and lecture hall look like in future

Photo will be shown

Videoconferencing

- Two or more sites communicate
- Real time two way video and audio transmission
- Private (i.e., participating sites must sign and are identified)
- Examples

  a) Television quality equipment

  b) Skype

  c) Google Hangouts

Webcasts

- Real time or recorded video and audio broadcast over the internet
- Limited two-way interaction
- Not private

  a) Don’t know who is listening or watching

  b) Only know IP address in hindsight

Videoconference Initiatives

- International Behavioural Neurology Rounds
- Africa-Canada Behavioural Neurology Rounds
- Neurology International Residents Videoconference and Exchange (NIRVE)

International Behavioural Neurology Videoconference Rounds

History

- First round in 2005
- Part of larger initiative through CISEPO and Peter A Silverman Global eHealth Program
- Baycrest (Canada was the coordinating hub)

Initial goal

- Build bridges through health education involving colleagues in Canada, Israel, Jordan, West Bank

All sites are equal partners

International Videoconference Rounds Expanded Since 2005

- American, Canadian, Cuban, Israeli, Jordanian, Russian, Saudi Arabian, South African, Spanish and Swiss (WHO) hospitals have participated
- Rounds are held monthly

Photos will be shown

Format

- Case presentations (with patient interviews)
- Lectures (including videos)

Short video clip of international videoconference round

International Videoconference Challenges

- Language
- Time zones
- Interactivity
- Evaluation

Clinical Care

Electronic Assessments Tools (no paper)

- Includes history, physical exam, and cognitive assessments
- Benefits include:

  a) Consultation letters automatically generated

  b) Drug interactions flagged

  c) Differential diagnoses suggested

Example of Electronic Assessment

Toronto Dementia Research Alliance

- Electronic history intake form and cognitive assessment (Behavioural Neurology Assessment – Revised) on iPad

Challenges

- Linkage with existing hospital electronic health records, and other databases
- Sustainability

Research

Electronic assessment tools

- Capture data for clinical research at point of care
- Automatic creation of subject registry for research study recruitment

Other Example of the Electronic Age

- Robots
- Virtual patients

Photo and video will be shown

Conclusions/Key Messages

- Healthcare is becoming more “electronic”
- Parts of the world still have a long way to go towards an electronic age
- Electronic “tools” will have growing impact on
  a) Education
  b) Clinical service
  c) Research

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References

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