Electronic Health Records: The OSCAR Experience

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Background

- Understanding practice patterns of Ontario chiropractors:
 - Survey/qualitative study (costly)
 - Abstracting case files (time consuming/costly)
 - Administration data bases (no clinical data)
- Community-based research studies:
 - Paper-based (recruitment, time)
 - Paper-based +electronic (missing data, admin data)
- Merging health and administrative data: EHR?





Electronic Health Records (EHR)

- Digital infrastructure increasingly used in healthcare
- Templates aid adoption of treatment guidelines
- Prompts/reminder systems improve safety & pathway adherence, enhance preventive activities
- Improve reimbursement and financial management
- Research: academic health centres vs community





EHR's: Community & PBRNs

- Community important to facilitate research
- Recruit variety of patients, diverse case mix
- EHRs can be used to recruit, identify potential subject
- Developing standards for exchanging clinical data is expanding rapidly
- Need assurances for privacy, standards for remote data capture, searchable anonymized database

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EMR: Gaps in knowledge & research*

- Primary care practice & research:
 - Uncertainty of value in patient care
 - Implementation /adoption influencers
 - Innovative data entry/extraction procedures
 - Agreement/understanding of data share
 - Limited funding/resources in e-health
 - Creating collaborative initiatives





EHRs: OSCAR Experience @ CMCC

- Why OSCAR (Open Source Clinical Application Resource)
 - Open source product core readily available
 - Centralized (APC) or de-centralized (LCS)*
 - Certified by OntarioMD; Class II Medical Device®
- Suite of web-based linked applications
 - EMR core functionality
 - Pt controlled health record; MyDrugRef; Client Access
 - Expandable: templates; eForms; graphical interface

*APC: Application Service Provider; LCS: Local Client[®] Server

EHRs: Key modifications/lessons

- Standardizing relevant patient data
 - Expert panel defined key patient information
 - Creation of e-forms, intake and billing applications
- Ensuring security and privacy controls
 - Preventing unauthorized access to patient level data
 - Queries originate and terminate from dedicated server
- Collection of clinical data
 - Promote standardized inputs via training
 - Importance of maintaining good quality data

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Theory to practice: Implementing OSCAR



- Intake: collecting clinical data
- Invoice: collecting service data
- Outcomes: tracking change
- Implementation strategy



Preparing OSCAR for "meaningful use"

Examples of CMCC's modifications to core EHR functionalities......



Thank you



