The Electronic Patient Record and Cancer Registries – Expectations and Limitations

Udo Altmann, Frank Rüdiger Katz, Joachim Dudeck
Institute of Medical Informatics, Justus-Liebig-University, Heinrich-Buff-Ring 44, 35392 Gießen, Germany

Physician’s opinions about tumour documentation
- “I have too much administrative tasks”
- “I don’t want to learn a complete system for only a part of my patients”
- “I already coded diagnoses and procedures”
- “Everything is in the hospital information system”

=> Can the data provided in the hospital information system / the Electronic Patient Record be used for Hospital Cancer Registries or even substitute them?
- Background: Experiences with communication interfaces to a hospital cancer registry system

The Hospital Cancer Registry Record (CRR)
- a normalised view on the course of disease
  - not every detail
  - aggregation of information from various resources with partially conflicting statements
  - each tumour disease is tracked separately
    - information is often tumour related

The Electronic Patient Record (EPR)
- patient oriented
  - on a time/admission axis
  - different types of documents
  - may be grouped in different, sometimes hierarchically organised, categories
  - linkage for workflow
    - usually not problem-oriented
  - also true on a federated level (integration from various care givers - Synapses project)

Problems of current implementations of HIS
- Reality
  - paperless EPR not yet very common
  - structuring
    - often limited to minimum (ICD diagnoses, ICPM procedures) (primarily motivated for legal/billing purposes)
    - where easily available (lab results)
  - Problem of ICD/ICPM-Coding
    - not specific enough (morphology, staging)
    - impact by purpose (e.g. choice of DRG)
    - some diagnoses are frequently repeated (each encounter => date of diagnosis?)

The EPR cannot substitute the CRR
- Need for
  - structuring
  - aggregation
  - tumour relation
- But the EPR is a valuable source of information
  - check completeness of diagnoses in the registry
  - complement information (e.g. pathology report, even if unstructured)
  - customising of data entry dependent on ICD codes

Future Directions
- Give more structure to the EPR
  - e.g. additional details depending on disease (ICD-Code)
  - => easier processing in the registry
- Integrate (parts) of the registry into the EPR
  - Make registry information available in the EPR
  - => User usually has only to complement the CRR some actual information

Support of documentation by pre-selection of diagnosis code from HIS

=> Can the data provided in the hospital information system / the Electronic Patient Record be used for Hospital Cancer Registries or even substitute them?
- Background: Experiences with communication interfaces to a hospital cancer registry system

The Hospital Cancer Registry Record (CRR)
- a normalised view on the course of disease
  - not every detail
  - aggregation of information from various resources with partially conflicting statements
  - each tumour disease is tracked separately
    - information is often tumour related

The Electronic Patient Record (EPR)
- patient oriented
  - on a time/admission axis
  - different types of documents
  - may be grouped in different, sometimes hierarchically organised, categories
  - linkage for workflow
    - usually not problem-oriented
  - also true on a federated level (integration from various care givers - Synapses project)

Problems of current implementations of HIS
- Reality
  - paperless EPR not yet very common
  - structuring
    - often limited to minimum (ICD diagnoses, ICPM procedures) (primarily motivated for legal/billing purposes)
    - where easily available (lab results)
  - Problem of ICD/ICPM-Coding
    - not specific enough (morphology, staging)
    - impact by purpose (e.g. choice of DRG)
    - some diagnoses are frequently repeated (each encounter => date of diagnosis?)

The EPR cannot substitute the CRR
- Need for
  - structuring
  - aggregation
  - tumour relation
- But the EPR is a valuable source of information
  - check completeness of diagnoses in the registry
  - complement information (e.g. pathology report, even if unstructured)
  - customising of data entry dependent on ICD codes

Future Directions
- Give more structure to the EPR
  - e.g. additional details depending on disease (ICD-Code)
  - => easier processing in the registry
- Integrate (parts) of the registry into the EPR
  - Make registry information available in the EPR
  - => User usually has only to complement the CRR some actual information

Support of documentation by pre-selection of diagnosis code from HIS

=> Can the data provided in the hospital information system / the Electronic Patient Record be used for Hospital Cancer Registries or even substitute them?
- Background: Experiences with communication interfaces to a hospital cancer registry system