EMR structure sharing - China

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Status overview

• No platform of systematic tracking for patient.
  • Most patient prefer national/provincial top level hospital for diagnosis and back to hometown for follow up
  • Data from hospital and pharmacy are separated
  • Data in different hospital are separated

• Most hospitals have their own pharmacy and patient could buy drugs in the hospital.

• Psychiatry drugs are under strict control and some drugs are not available in the pharmacy outside of hospital.

• Except for ICD 10-CN version, no standard vocabulary. Each hospital has their own EMR system with different coding principle.

• Few national/regional registry program/platform
Hospital system

• There are several systems for different purpose in the hospital, most hospital, these systems are separated, different information from different system:
  • HIS (most are structured): cost manage system
  • EMR (most are unstructured): all medical record input by doctors
  • LIS (most are structured): lab test information including name, time, result etc.
  • PACS: for imaging, both picture and report (most are unstructured)
  • Main page of medical record (most are structured)
Some information stored in >= 2 systems and may be different

<table>
<thead>
<tr>
<th>OMOP domain</th>
<th>Hospital system</th>
<th>comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>HIS</td>
<td>Structured</td>
</tr>
<tr>
<td>Visit occurrence</td>
<td>HIS</td>
<td>Structured</td>
</tr>
<tr>
<td>Condition occurrence</td>
<td>• Main page of medical record (diagnosis) • EMR (symptom &amp; signs</td>
<td>• Structured • unstructured</td>
</tr>
<tr>
<td>Drug exposure</td>
<td>HIS</td>
<td>Structured</td>
</tr>
<tr>
<td>Observation</td>
<td>EMR</td>
<td>Unstructured or semi-structured</td>
</tr>
<tr>
<td>Measurement</td>
<td>LIS</td>
<td>Structured</td>
</tr>
<tr>
<td>Device</td>
<td>No information</td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td>HIS-medical order</td>
<td>Structured or semi-structured</td>
</tr>
<tr>
<td>Cost</td>
<td>HIS</td>
<td>Structured</td>
</tr>
<tr>
<td>Death</td>
<td>Main page of medical record</td>
<td>Seldom happen (only 6 in current database)</td>
</tr>
</tbody>
</table>
EMR structure-content list

- Outpatient record
- Inpatient record
  - Admit note
  - Discharge not
  - ......
- Operation record
- Caring (nurse) record
- Transfusion record
- Scale record
- ......
Outpatient record

First visit

Person who visit
Main complaint
History of present illness

First visit:

Past medical history: 良好, 否认冠心病病史, 否认高血压病史, 否认糖尿病病史。
Past injury: 否认药物过敏史, 否认食物过敏史。
Personal history: 行走, 生育状况, 文化程度, 教育程度。
Family history: 精神病家族史: 无。躯体疾病家族史: 无。
Family history: 精神病家族史: 无。躯体疾病家族史: 无。
Examination: 体温, 脉搏, 呼吸, 收缩压, 舒张压。

Regular visit

Initial diagnosis: 请填写初诊

Consultant: 请填写

Content: 病情: 稳定, 精神状态有改善

Sleep: 睡眠状况

Eating: 进食情况

Mental health: 二便是否正常

Adverse reactions: 有无明显不适

Examination: 肢体情况

Examination (abnormal description): 查体

Physical examination: 精神状态

Treatment: 请填写

Consultant: 请填写

Prescription: 请填写处方

Consultant: 请填写

Medication: 请填写

Consultant: 请填写

Reference: 北京市精神疾病门诊病案手册是否上报

Consultant: 请填写

Examination: 请填写
Inpatient record-admit note

Some are structured, but the vocabulary are not standard
# Main page of medical record

### Patient information

- **Diagnosis**
- **Operation**
- **Cost**

### Table

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient name</td>
<td>[Insert Patient Name]</td>
</tr>
<tr>
<td>Age</td>
<td>[Insert Age]</td>
</tr>
<tr>
<td>Gender</td>
<td>[Insert Gender]</td>
</tr>
<tr>
<td>Medical history</td>
<td></td>
</tr>
</tbody>
</table>

### Diagnosis

- [Insert Diagnosis Details]

### Operation

- [Insert Operation Details]

### Cost

- [Insert Cost Details]
Predefined rules to ensure quality

Physical examination:

Body temperature:
effective value is 35-44