Patient List –MU2 Assignment – Team2

Patient List Creation: Interface

Patient List –Result Format Example:

Report#1 and 2 are the examples that evaluate the capability of an EHR technology that enables a user to electronically and dynamically select, sort, access, and create patient lists by date and time based on data from each one of the following: problems, medications, medication allergies, demographics, laboratory tests and values/results

(Here for example purpose sorted list is shown for Diagnosis and Medication only. Similar query could be set up for other categories). SQL query could be something like **'Example #1: SQL Query that uses a data element'** given at end.

Report#1	
Undup_Patient_Count	**Diagnosis**
100	Lung Cancer
50	Heart Problem
30	Diabetes
20	Alzheimer
5	Pneumonia

Report#2	
Undup_Patient_Count	**Medication**
100	Oxycodone
50	Plavix
30	Med3
20	Med4
5	Med5

Report # 3 is the example that has one combination of data from two or more of the following data categories: problems, medications, medication allergies, demographics, laboratory tests and values/results that is required for MU2 certification. Sorted by descending order of unduplicated patient count.

The SQL that could generate this kind of report with sorting could be similar to: **Example#2: SQL Query that uses a combination of data elements**

Report#3		
Undup_Patient_Count	**Diagnosis**	**Medication**
70	Lung Cancer	med1
30	Lung Cancer	med2
20	Heart problem	Plavix
20	Heart problem	some med2
10	Heart problem	some med3
3	Pneumonia	Antibiotic 1
2	Pneumonia	Antibiotic 2

SQL Queries Examples:

Example #1: : SQL Query that uses a data element

```
Select count(distinct patient), Medication
        FROM Patient_wDiagnosis_Table
WHERE ServiceDate BETWEEN '11/18/2012' AND '11/18/2013'
        GROUP BY Medication
        ORDER BY count(distinct patient) Desc
```

Example#2: SQL Query that uses combination of data element

```
SELECT count(distinct a.Patient_id) , Diagnosis_name, Medication_Name
        FROM  Patient_Data a, Diagnosis b,Medication c
WHERE a.Diagnosis_id=b.diagnosis_id
AND a.medication_Id=c.Meication_id
AND (b.Diagnosis_Name='Enter Diagnosis Name' AND Medication_Name="Enter Medication Name").
AND a.age between date1 and date2
AND a.Service_Date between date1 and date2
ORDER by count(distinct a.Patient_id), Diagnosis_Name, Medication_Name;
```

These SQL queries could be embedded as stores procedures within the conditional statements of the web page.

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Patient List for MU2 has 2 new criteria medication allergies, patient's communication preference with date/time. This was not there before.

Therefore, now patient list creation (Select, Sort, Create) is based on data from the entire element set before plus above 2 new criteria. This will also create patient list based on data from each of the element as well as combination of two or more data elements.

Date/time should be applied for any date element. Sorting should be possible (any order ascending or descending) by any data element as well as date/time attribute.

Search by each data element should be possible.

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