Utilizing Clinical Data Across Multiple Aims Encounters: Finding Meaningful Use

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Patient data, to have meaningful use, should be available and synthesized for the clinician at the point of care.[1] Current electronic documentation systems are designed to retrieve patient data one encounter at a time. Most reports generated by AIMS are for QA, QI, Billing and research; not necessarily clinical information. A clinician must sift through entire reports from multiple encounters to glean historical perspective of clinical data. Needed data is not usually accessible in a condensed and summarized form for clinical decisions.

We propose encouraging the use of AIMS data to create focused, relevant and timely reports for clinical decision support.

We created a website for access to clinical reports to allow for addressing clinical questions in a timely manner. A website with reports can be linked through AIMS (or accessed outside of AIMS). Data is queried across multiple encounters, then summarized and displayed as a web report. This has been demonstrated to be useful in pediatric radiation treatment.[2]

Example: ECT Series Clinical Decision Support

Tx	Methohexital	Sux	Sz (secs)	ECT	Next treatment
1	100	70	32	Bilateral	Incr SUX
2	100	80	16	Bilateral	Decr Methohexital
3	90	80	18	Bilateral	
4	90	80	22	Bilateral	

Discussion: In our clinical example we developed a report that looked at the anesthetic drugs given, seizure time and suggestions for next treatments. In its summarizing and tabular form the relevant, and historical, clinical data is provided to the clinician to aid in determining medications for the next/current encounter. The format, data elements and presentation are just a suggestion of how this information can be useful for clinical decisions. Often one must look through multiple anesthesia records to determine previous medications and subsequent effectiveness. By querying, synthesizing and displaying relevant data elements the clinician can appreciate previous treatments for clinical decisions. Similar data have been used to predict ECT effectiveness using ictal outcomes.[3]

This abstract discusses the meaningful use of ECT clinical data but this same technique can be used gleaning historical perspectives on airway management, allergies, risk stratification and many other important variables. We encourage EHR developers to include similar reporting features in their products.

References:

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