Appendix A

Administrative Patient Data Elements That Should Be Added

Multiple names/IDs

US citizenship

Information related to custody of child

Co-signature of the healthcare worker on patient authorization for use of electronic data storage of the patient's records

If patient does not wish to be listed in patient directory (security issues)

Age—separate from DOB

Social Security number

Patient phone number

Legal status changes

Alternate/other emergency contacts

Level of care needed/diagnosis

Patient status: active, inactive, obsolete or deceased

Guarantor or responsible party

Income group

Effective date of payor

General and special consent

Co-pay or co-insurance amount

Authentication of patient responsibilities

Eligibility information (well care coverage)

Primary care physician

Source of development (internal/external)

Primary language spoken

Parent/legal guardian legal address

Last visit date

Information related to veterinary medicine

Emergency contact: name, phone number, address

Relationship of payment sponsor to patient

Mother's maiden name

Allergies

Social Security number of the family member the insurance is under

Patient photo

Patient e-mail address

Patient fax number (as applicable)

What information was released

Record amendment date (as applicable)

Chronic diseases

DNR status

If deceased, date of death

Medicare secondary payor (MSP) questionnaire

Family member contact information

Occupation address

Secondary payor information

Admit date, admit source (If an MD or other provider, who),

D/C date, unit admit date, unit discharge date,

Length of stay, length of stay in each unit,

Unit level charge codes by resource used, unit level cost, total cost

Blood type

Administrative Patient Data Elements That Should Be Removed

Record holding location ID (not needed with one centralized patient record) but may be needed for multifacility institution or integrated delivery network (3)

Race and ethnic group should be combined (2)

Ethnic group (2)

Do not remove any of the data elements

Insurance information could be included with business office information

The more information collected the better

All ROI data should be kept in separate file (2)

Categorize or group (personal, family, billing)

Time of birth, place of birth—too specific only need DOB

Family name/relationship should be contact name/relationship—not limited to only family

Race

Education level (2)

Patient's work place

Religion, except where a person's religion has a direct effect on their healthcare. For example, some patients will not consent to blood transfusions due to their religion.

Limit to enterprise/emergency needed info versus clinical data

Additional Comments

Use the patient's social security number for the universal patient health number

Do not view the electronic health record as the system of record for the items listed above. The patient demographics database to which the EHR is interfaced is the system of record and actually includes all of the items except for race and ethnicity.

Encounter Data Elements That Should Be Added

Trauma indicators

Custody of child

Complete audit trail of anyone who views or enters data in the clinical record, with authentication/signature

Procedures/services provided, procedure dates; attending physician, admission/referral physician

DRG/CMG/other PPS classification

Admission instructions (text), previous medical reports (text)

Physician name/specialty (both attending and resident staff)

Patient's primary care physician or the treating physician name or number

Structured and codified notes with what is essentially SNOMED-CT, since these notes provide more than text

Core/system data vs. external data

Transfer information if from another facility

It is very helpful to be very specific about facility name—different departments

Sensitive information—mental health, HIV, drug and alcohol

Admission mode of transportation and location of patient with the treating facility

Provider ID

Admission information (diagnosis, from ED)

Room and bed information

Other providers seen during episode of care

HIPAA compliance

Patient photo

Patient contact info—phone number

ICD-9-CM (ICD-10 - future) diagnosis/procedure codes, episode procedures (first three), CPT codes

Authentication/signature date

If authentication is not by patient, then indicate who signed and relationship to patient

Family member names and relationship

Encounter Data Elements That Should Be Removed

If an "encounter" includes a clinic visit, then disposition time, type, instructions, destination seems excessive and meaningless (3)

Episode ID (as sequential number related to same diagnosis)

Additional Comments

Everything that you listed above is utilized to its fullest potential at my facility where I am currently working.

Based on how the database is designed you may want even more fields or data elements in this table

The above elements seem to primarily pertain to the in-patient setting. An EHR in the outpatient or ambulatory care setting presents different disposition outcomes, which do not appear to be offered above.

This is hard to say. We need to simulate an electronic record and use it, then work backwards to access what the needs are from different users.

Problem Data Elements That Should Be Added

Physical location of onset, trauma intent

Classification as to type of problem—abnormal lab, symptom, sign, diagnoses, other abnormal tests, uncontrolled vital signs, location of problem, severity

Date of resolution (5)

Unique identifiers should join this table with other tables such as the encounter ID to join to the encounter table. Problem should have a linking table with a constant identifier for future research. Since problems are not in any order, it is difficult to retrieve aggregate data about specific problems and their resolution without this type of crosswalk to link to other fields. This also holds true for diagnosis fields (2)

Failed treatments/therapies

Provider name

Coded data of problem

Current medications; allergies

Problem Data Elements That Should Be Removed

Duplication of problem name (Is it needed at encounter and time of care?) (2)

Additional Comments

It would be easier to keep problems straight if a name were given rather than just a number.

To provide structure, the problem should be associated with an ICD-9 code.

Should include a list of ongoing problems and physicians choose from list

Treatment Plan Data Elements Added

Diagnosis information related to a specific order

Medications the patient takes at home

Order set, expert rule

EMS sheet, prior treatment to facility

Explanation of treatment to patient

MD ordering

Date of resolution

Health maintenance

Patient referred to—specialty

Treatment plan ID and problem ID need to be cross-referenced or similar numbers to help find treatment for each problem

Electronic signature of ordering physician

Patient compliance

Physician ID that developed the treatment plan

Follow-up, if no results are entered in a timely manner

Referrals, follow-up visits

Diagnosis requiring the order if diagnostic testing needed such as diagnosis for X-ray

ID of individual executing and giving orders

Authentication of orders

Dispensed drug and generic substitutions

Results of treatment

Name of person authorizing order

Name of person taking/entering order

Date/time of administration of orders

Comments section for reasons orders may have not been carried out

Treatment Plan Data Elements Removed

Treatment Plan ID

Additional Comments

If standard format is used, just keep a copy of this and not every form on every chart.

Make time a required field or build it into the system. Actually time of treatment is superior to time of documentation but not sure how to build this into system.

Do you want to differentiate between physicians and nurses? There are care plans for each group of providers, including PT, ST, and so forth.

We do not use codes for treatment plans. Sometimes treatment plans include multiple tasks. I would think it would be difficult to establish codes for all the different types of solutions that are decided for patients' problems.

Provider Data Elements Added

All practitioners and appropriate information

Practitioner's status—active vs. inactive

Practitioner's title—MD, FNP, MSW, PA, and so forth.

Other contact information (specifically, provider e-mail, phone number, fax number, beeper number) (2)

Provider should always be identified with specialty and by role such as ordering or prescribing, attending, admitting, primary, interpreting, treating, and so forth (3)

Name of consultant and specialty consultants during an episode of care. Type, date of order, date consultation completed, consultant's report (2)

Admission/encounter consultant; Admission/encounter referring

DEA and state license numbers

Primary RN

Pharmacy provider information

Social service provider information

Provider participant insurance plans

Admission/encounter surgeon role

Include space for resident staff

Name of any laboratory or radiology services used

Provider Data Elements Removed

Provider agency ID code—goal should be to strive for a universal/standard number for physicians and other providers.

Additional Comments

Would provider type be better served by provider taxonomy code? How/who will define provider type? This is the same for practitioner's profession.

History Data Elements Added

Previous surgeries, review of systems, family history (9)

Prenatal records

Birth history, information from previous providers, current medications (9), and chronic problems

Past medical history to include social history, family history, surgeries, immunizations, habits, infections, trauma, and so forth.

Psychosocial history

Authentication of person taking history information

Family history, adverse drug reaction reports, blood group, allergies (2), special instructions.

Past surgeries, female OB/GYN history

Developmental history (child/adolescent)

Review of systems, authentication

Surgical history (2)

ICD-9 and CPT codes for free text

Authentication/signature (for last update)

Date of authentication/signature

Additional Comments

Allergies, advance directives, current medications, and immunizations ALL must be a separate, unique field. Any other regulatory requirements must be included and be a separate, unique field.

Observation/Assessment Data Elements Added

Current medication list, immunization records

Ability to differentiate normal versus abnormal, ability to document by exception, for example, all normal except pertinent positives and negatives, developmental guidelines, growth charts, clear relationship between assessment-problem list plan, clinical impression

Practitioner doing exam

Authentication of person doing assessment/exam

Treatment provided on the spot of accident, during transit, in case of unconsciousness

Exam recommendations for further treatment

Prognosis

Patient confirmation on injury history

FIM scores-functional assessment by therapist

Special consideration needs to be given for surgical and anesthesia (pre-surgery) exams. This is a weak area.

Reason for observation status or change in status

Observation/Assessment Data Elements Removed

Time of exam (such as family practice clinic encounters)

Additional Comments

We use physician-specific templates, which link to a master table.

Diagnostic Data Elements Added

Performer name, discipline (tech, RN, phlebotomist, so forth)

Electronic authentication and identification of person entering data

Graphing capability to examine test results on a multiple of axis

Test unique ID number (for example, X-ray number)

Ordering provider/practitioner

Date/time ordered

Authentication/signature

Date of authentication/signature

CLIA test number if applicable (2)

Document date and time of collection and specimen handling, reminders regarding local medical review policy, follow up-track if results are entered in appropriate time, follow CLIA compliance issues, controls and proficiency testing

Additional Comments

Results move back into the EHR as coded elements via SNOMED-CT, not as text, except for the case of descriptive reports like radiology or anatomic pathology.

Include space for normal ranges so results not within the normal range stand out.

All results should be kept.

Episode Data Elements Added

All progress notes and orders need to be kept as well as who gave the order, who took the order, date, and time

Authentication date

Relationship of the person providing the information

Type of clinical note (various sub-disciplines involved)

Review of the following: allergies, current medications, vital signs, problem list, recent encounters and procedure results, administration detail on medications or procedures done in the office including authenticator/signature. Patient education information given to take home, the charges for the service.

Immunization status

SOAP format; where's impression and plan?

Disposition

Location, severity of problem

Identification of progress note service/focus such as neurology, family practice, pulmonary

Additional Comments

Once again, while text entries are possible, structured entry also occurs.

Use physician-specific templates, which link to master table

Service Instance Data Elements Added

ASA classification for surgeries

Pre-operative diagnosis/reason for operation

Therapy preparation, therapy out of room, sponge count correct

Social services

Referrals, authorizations, patient-informed consent that explains risks, benefits, alternative treatments, patient education, and informed consent for immunizations, suggest vaccine administration codes for billing, need documentation of last visit prior to refilling some medications.

Who administered medication?

What date/time was medication administered?

Authentication/signature

Authentication signature date/time

Certification and re-certification dates for therapies in development.

Any injectables—document site of the injection

Anesthesia date and time, recovery room data, postoperative instructions, post-mortem report, cause of death, death body handing over procedure information.

Immunization lot number, location

Medication contraindications, medication interactions with other drugs, drug allergies

Additional comments

Our EMR is a hospital-based record, not a clinic record. Also, the dictated reports are embedded into the EMR, which is where the chief complaint is located. There is no original text.

Our EHR does not contain a prescription writing capability. Meds are documented in clinical notes and the medication list for the patient.

Templates can be set up for immunizations.

We do not originate those types or services or documents in our setting. We do, however, incorporate text-based documents into the patient's EHR for care continuity.