

Texas State Reportable Infectious Diseases

A Systems Solution to the Problem of Reporting

How can healthcare providers design a solution to a complex healthcare problem, particularly when the problem is not generated by a patient's request but by a public-health need. In the former case, the provider simply determines if the request is appropriate or not. In the latter case, no one is in the provider's office requesting a service; a requirement has been established and it is up to the provider, in the midst of many other demands, to remember and to fulfill the requirement. In the case of infectious diseases, requirements have been published for providers to report the occurrence of dozens of conditions.

The problem is that the medical literature is filled with studies showing very low compliance of physicians with reporting infectious diseases to State Health Departments. In Texas, there are 78 infectious diseases which require reporting. The window for reporting compliantly varies from immediately, to one working day, to one week, to ten days, to one month. It is improbable that many healthcare providers know the entire list or the requirement for reporting. The Department of Health wants the report to be triggered by a suspicion and not by a confirmed diagnosis. If the provider waits until the confirmation is made, the opportunity for a public health intervention is lost. A systems solution would be best. The ideal solution would be an electronic medication record (EMR) system in which the reporting action is triggered by the documentation of the diagnoses in the assessment in the EMR.

On April 30, 2011, Dr. Holly made a presentation for a CME program at Texas A&M College of Medicine. The lecturer who followed him was Dr. Edward J. Sherwood, who lectured on "The Ethics of Infectious Disease." Dr. Sherwood distributed a publication of the Texas State Health Department which detailed the 78 reportable conditions. During this presentation, it occurred to Dr. Holly that rather than asking provider to memorize a list of 78 infectious diseases and to organize them into groups according to the time frame in which reporting is required, that the EMR is an ideal means of doing this reporting electronically.

Therefore, SETMA's Information Technology Department was charged with designing a functionality which would:

1. Display the reportable conditions for provider review
2. Detail the time frame in which each infectious disease should be reported.

- Denote on the display of the reportable conditions the infectious disease which is identified by the provider. This would be done automatically when the diagnosis is documented on the assessment template in the EMR.
- Simultaneous with number three, a telephone message would be sent to SETMA's Care Coordination which would then make the call or send the fax to report the infectious disease. The fact that this had been done will be stored in the EMR in a searchable fashion.

SETMA's Solution to the above

On SETMA's AAA Home template, which is the place where all patient care begins, there is a new button entitled **Reportable Conditions**. It can be seen below outlined in Green.

SOUTHEAST TEXAS MEDICAL ASSOCIATES, L.L.P.

Patient: Greg Test Sex: M Age: 85 Patient's Code Status: Full Code
 Home Phone: (409)833-7979 Date of Birth: 12/15/1925
 Work Phone: () -

Patient has one or more alerts!
[Click Here to View Alerts](#)

Reportable Conditions (highlighted in green)

Pre-Vist/Preventive Screening **Bridges to Excellence View**

Preventive Care	Template Suites	Disease Management	Last Updated	Special Functions
SETMA's LESS Initiative I Last Updated: 06/30/2010	Master GP I Pediatrics Nursing Home I Ophthalmology Physical Therapy Podiatry Rheumatology	Diabetes I Hypertension I Lipids I Acute Coronary Syn I Angina I Asthma Cardiometabolic Risk Syn I CHF I Diabetes Education Headaches Renal Failure Weight Management I	09/21/2010 09/21/2010 09/21/2010 // // // 09/21/2010 09/21/2010 // // 01/20/2010 09/21/2010	Lab Present Lab Future I Lab Results I Hydration I Nutrition I Guidelines I Pain Management I
Preventing Diabetes I Last Updated: //				
Preventing Hypertension I Smoking Cessation I Care Coordination Referral PC-MH Coordination Review Needs Attention!! HEDIS NQF PQRI Elderly Medication Summary	Hospital Care Hospital Care Summary I Daily Progress Note Admission Orders I			Information Charge Posting Tutorial Drug Interactions I E&M Coding Recommendations ICD-9 Code Tutorial Insulin Infusion
Exercise Exercise I CHF Exercise I Diabetic Exercise I				
Patient's Pharmacy Wal-Mart - Vidor Phone: (409)769-1691 Fax: (409)769-9790 Rx Sheet - Active Rx Sheet - New Rx Sheet - Complete Home Health	Pending Referrals I			Chart Note Return Info Return Doc Email Telephone Records Request Transfer of Care Doc

Status	Priority	Referral	Referring Provider
Completed	Stat	Abbas, Asad	Holly
Completed	Routine	SETMA Ophthalmology	Vardiman
Completed	Routine	Bone Density	Abbas

When this button is deployed the following template appears. The template can be used as a review for providers or nurses of what needs to be reported and/or to note that the diagnosed infectious condition, in this case "measles," has been automatically checked as a result of the provider having selected this diagnoses on the assessment template.

Texas Department of State Health Services Reporting Guidelines

The following conditions must be reported to the Texas Department of State Health Services within the timeframe specified. Reports may be made by telephone to 1-800-252-8239 or by mail by clicking [here](#).

ANY outbreak, exotic disease or unusual group expression of disease that may be of public health concern should be reported by the most expeditious means possible.

The following must be reported IMMEDIATELY.

- ☐ Anthrax
- ☐ Botulism, Foodborne
- ☐ Controlled Substance Overdose
- ☐ Diphtheria
- ☐ Influenza, Type B
- ☐ Lead, Any Level, Child or Adult
- ☒ Measles (Rubeola)
- ☐ Meningococcal Infection
- ☐ Plague

- ☐ Polio
- ☐ Rabies
- ☐ SARS
- ☐ Smallpox
- ☐ VISA and VRSA
- ☐ Tularemia
- ☐ Viral Hemorrhagic Fever (Including Ebola)
- ☐ Yellow Fever

The following must be reported within ONE WORKING DAY.

- ☐ Brucellosis
- ☐ Hepatitis A, Acute
- ☐ Hepatitis B, Perinatal
- ☐ Influenza-Associated Pediatric Mortality
- ☐ Pertussis
- ☐ Q Fever
- ☐ Rubella, Including Congenital
- ☐ Syphilis, Primary and Secondary
- ☐ Tuberculosis
- ☐ Vibrio Infection, Including Cholera

The following must be reported within ONE WEEK.

- ☐ AIDS
- ☐ Amebiasis
- ☐ Arbovirus
- ☐ Asbestosis
- ☐ Botulism - Infant, Wound, Other
- ☐ Campylobacteriosis
- ☐ Chancroid
- ☐ Chickenpox
- ☐ Chlamydia
- ☐ Creutzfeldt-Jacob Disease
- ☐ Cryptosporidiosis
- ☐ Cyclosporiasis
- ☐ Cystercercosis
- ☐ Dengue
- ☐ Ehrlichiosis
- ☐ Encephalitis

- ☐ Escherichia Coli
- ☐ Gonorrhea
- ☐ Hansen's Disease (Leprosy)
- ☐ Hantavirus
- ☐ Hemolytic Uremic Syndrome (HUS)
- ☐ Hepatitis B, C, D, E and unspecified
- ☐ Hepatitis B (Prenatally or at delivery)
- ☐ HIV
- ☐ Legionellosis
- ☐ Leishmaniasis
- ☐ Listeriosis
- ☐ Lyme Disease
- ☐ Malaria
- ☐ Meningitis
- ☐ Mumps

- ☐ Pesticide Poisoning
- ☐ Relapsing Fever
- ☐ Salmonellosis, Including Typhoid Fever
- ☐ Shigellosis
- ☐ Silicosis
- ☐ Spotted Fever Group Rickettsioses
- ☐ Streptococcal Disease, Invasive (Group A, B, S Pneumo)
- ☐ Syphilis
- ☐ Taenia Solium
- ☐ Tetanus
- ☐ Trichinosis
- ☐ Typhus
- ☐ West Nile Fever
- ☐ Yersiniosis

The following must be reported within TEN WORKING DAYS.

- ☐ Drowning, Near Drowning
- ☐ Spinal Cord Injury
- ☐ Traumatic Brain Injury

The following must be reported within ONE MONTH.

- ☐ Contaminated Sharps Injury

OK

Cancel

The above checking off of “measles” was noted automatically when the ICD-9 and soon to be ICD-10 code was selected by the provider as is seen below. (Clinicians will amuse themselves with the co-morbidities denoted in this selected “test” patient. It is generally not the case to find measles in patients with diagnoses which are probably from an elderly patient.)

PDAM	NURSE	HISTORIES	HEALTH	QUIZES	HPI	ROS	P.E.	X-RAY	ASSESS	PLAN	PROCS																																										
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Master GP
Nursing
Histories
Health
Questionnaires
HPI Chief
System Review
Physical Exam
Radiology
Plan
Procedures
Chart Note

When the infectious disease diagnosis is selected, the system:

1. Automatically checks the diagnosed infectious disease on the template where the list of infectious disease is displayed. (see above)
2. A telephone message is sent to SETMA's Care Coordination Department.
3. The call notification appears in the workflow of the Care Coordination team.
4. Once the report is made, a note is added to the patient's chart noting that Health Department notification has been done.

The beauty of this solution is that the provider simply diagnoses a suspected infectious disease and the rest is done without further action by the provider.

The following is the Care Coordination telephone alert which is sent to the nurses in SETMA's Care Coordination Department:

New Task

Due Date: 5/10/2011

Priority: High ☐ Completed

Subject: Reportable Condition Present

Description: This patient has one more conditions that must be reported to the Texas Department of Health Services within a timely manner.
Please open the attached template to review the conditions which are present along with the required timeframe for reporting.

Assigned: Care Coordination; Assign To...

Patient: Test, Greg Select...

Attach: Template AAA Home

☐ Task Categories Add Cancel

At this point, the process is complete. The entire responsibility of the provider is to make the presumed diagnosis. The remainder is done by a systems protocol which is automatic. We expect this to increase the reporting of infectious disease by SETMA to almost 100% thus improving individual patient care, community care and public health.

Additional Functions

If the provider clicks the link circled below, it will automatically launch a form such that if the provider chooses to report by mail, the form can be printed..

Reporting Infectious

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OK
Cancel
[Click Here To Document Reporting Details](#)

When the Care Coordination department reports the infection, the following allows for the documentation of that report.

Reporting Infectious Det

Infectious Disease Reporting Details

Select Reporting Method: ☒ Mail ☐ Phone

Reporting Done By:

At:

On:

Comments:

PDF completed and sent via certified mail.

OK
Cancel

Auditing

Quarterly and annually, SETMA will create the following audits:

1. How many infectious diseases were documented as having been suspected by providers in the practice? These will be categorized by each of the 78 reportable conditions listed above.
2. How many infectious diseases were reported to the appropriate health agency?
3. How many of each infectious diseases were reported within the designated time frame?
4. If a confirmatory test was performed, what percentage of the report conditions were proved to be present?

This material will be an ongoing quality improvement project by SETMA.

This is a simple but elegant solution to a complex problem which has never been completely solved. It requires no time on the part of the provider. It is measurable and it is sustainable.

Since SETMA designed this solution, several issues have arisen which were unanticipated.

1. Does the Department of Health want previously reported incidences of chronic infectious diseases such as hepatitis and HIV to be “re-reported?”
2. Does the Department of Health want infectious diseases previously reported in other states reported when the patient moves to Texas?
3. Does the state have a way of determining that a chronic infectious disease has been previously reported or not?
4. In regard to EMR solutions, the diagnosis of “Coumadin Toxicity” is reported as an “overdose.” Obviously, this is not the intent of the desire for public health officials to know the incidence of narcotic or psychotropic drug overdoses. The power of electronics has to be guide so as not to report conditions not intended to be reported.

It is probable that as we proceed, other issues in reporting infectious diseases will arise. The good news is that the above issues have not been considered previously and decisions are being made as to what the answers are. We are all learning and with electronics, we are all participating in improving the care Texans and Americans are receiving.