



TIPS FOR GATHERING DATES DURING CASE INVESTIGATIONS

This tip sheet gives information on the importance of collecting a variety of dates during case investigations and tips to gather complete information. There can be some limitations on obtaining all dates during an investigation and it is recognized that some dates may not be available to the investigator.

Cases in the Michigan Disease Surveillance System (MDSS) were reviewed to assess completeness of several date fields in the case detail form. A representative disease from each disease group was selected for the review process. Statewide cases from the fourth quarter of 2016 (October through December) were reviewed, except for Lyme Disease (third quarter 2016 was reviewed) and Chlamydia and Gonorrhea (first week of October 2016 was reviewed).

Onset Date

The Issue and Importance of Onset Date

Onset date is the date the case first started to have symptoms. A quick review of statewide data in the MDSS revealed that many cases were missing onset date information (Table 1, below). Onset dates are important to collect during case investigations as these dates can direct public health intervention. Onset dates can be used to determine incubation time, period of communicability, post-exposure prophylaxis recommendations, and may inform other ways to limit transmission.

Table 1: Percentage of cases missing onset date for select diseases and the importance of onset dates.

Disease Group	Disease	Total Number of Cases	Missing Onset Dates	Importance of Onset Dates
Foodborne	<i>Campylobacter</i>	335	20.9%	Sets the timeframe to collect food history and prevention measures
	Salmonellosis	207	17.9%	
Vaccine Preventable Disease	Chickenpox	134	20.9%	Helps determine all contacts during infectious period to direct prophylaxis control measures
Sexually Transmitted Disease	Chlamydia	809	79.7%	May not always be available but helps direct contact tracing
	Gonorrhea	218	81.2%	
Other	Legionellosis	103	8.7%	Sets the timeframe for assessing potential environmental exposures (e.g., travel, event)
Vectorborne	Lyme Disease	132	11.4%	Sets the timeframe for potential exposures to vectors
Meningitis	Invasive <i>Streptococcus pneumoniae</i>	190	27.9%	Helps direct contact tracing and provides a timeline to help mitigate further exposures

Tips for Collecting Correct Onset Date

- Obtain information from medical records
- Use a calendar or memorable event, such as vacations/travel or holidays, to help assist with proper recall
- Try to rephrase the question using a known symptom of the disease:

- For pertussis – When did coughing start? Any cold symptoms prior to the coughing and if so, for how long?
- For foodborne illness – When did vomiting/diarrhea first occur?
- Use another date such as a healthcare provider visit or lab specimen collection date to help approximate onset
 - The lab specimen collection date can give a close approximation of the onset date (when a person feels sick enough to get testing done, the person visits the provider who then collects a specimen, if appropriate)
 - If you need to use an estimated onset date, make a note in the comments section that an approximation was used

Laboratory Dates

The Issue and Importance of Laboratory Dates

There are multiple dates within a laboratory report. ‘Lab specimen collection date’ is the date the specimen was collected for testing. This date can help in the course of a case investigation to help the provider find relevant information within the case’s records. It can also help approximate onset date.

‘Lab report date’ is the date that the lab report was issued. This date may provide a better timeline of disease progression based on whether the disease-causing organism was detected, if any recommended treatment was given at the appropriate time, and if the disease is still transmissible. For certain high risk occupations, having a negative test result within a certain time period will also help determine clearance for returning to work. Finally, this date is necessary to complete the Public Health Emergency Preparedness (PHEP) Cooperative Agreement Performance Measures, regarding reporting timeliness.

Table 2: Percentage of cases missing laboratory dates for selected diseases and the importance of laboratory dates.

Disease Group	Disease	Total Number of Cases	Missing Lab Specimen Collection Date	Missing Lab Report Dates	Importance of Laboratory Dates
Foodborne	<i>Campylobacter</i>	335	6.3%	11.3%	Indicates when testing was done; may provide information on follow up testing; useful in assessing reporting timeliness
	Salmonellosis	207	3.4%	35.8%	
Vaccine Preventable Disease	Chickenpox	134	75.4%	75.4%	Helps determine if case was properly tested at the appropriate time (e.g. lesion swab for chickenpox) or if the diagnosis is based on clinical presentation
Sexually Transmitted Disease	Chlamydia	809	27.2%	36.1%	Helps direct contact tracing and ensuring treatment can be or was effectively given
	Gonorrhea	218	34.9%	42.2%	

Other	Legionellosis	103	11.7%	15.5%	Helps determine timeframe for exposures, important for cases that may be exposed in facility environments that can be mitigated
Vectorborne	Lyme Disease	132	9.9%	9.9%	Sets the timeframe for potential exposures to vectors and for certain diseases if treatment able to be given in timely manner
Meningitis	Invasive <i>Streptococcus pneumoniae</i>	190	8.4%	4.7%	Helps determine potential exposure and contact tracing - especially if hospital-acquired

Tips for Collecting Correct Laboratory Dates

- **Lab specimen collection dates:**
 - Most lab report test results have a lab specimen collection date – this date and the lab report can be the same, but is not necessarily the same date
 - During an Emergency Department (ED) visit, the lab specimen collection date may be the only date available if the person was not admitted or if a test result was never generated or reported
- **Lab report dates:**
 - Often lab report date is the date the lab report is generated, not the date reported to public health (exception: some labs are generated and reported out the same day)
 - According to the Michigan Public Health Code, all conditions listed in the Physician and Authorized Health Care Professional Reporting Requirements table are required to be reported **within 24 hours** of discovery or diagnosis (unless noted); this would be the positive test result for most conditions
 - For certain diseases, it is important to document the **FIRST** lab report date, especially when multiple tests are needed for confirmatory purposes
 - STEC: the first test is usually an EIA or a PCR test; additional confirmatory testing is required
 - Hepatitis A: the first test is the IgM test; additional testing like genetic sequencing could be done
 - *Salmonellosis*: the first test may be a culture-based OR a culture-independent test; additional confirmatory and serotyping is required
 - In some instances, the initial lab results may be reported before the actual report has been generated. The first lab report date will still be the date of the first positive test result. Some examples include:
 - Meningococcal Disease: since a suspect case requires immediate notification, contact tracing and prophylaxis of potentially exposed people, the lab report date could be after the initial reference or case entry date
 - Measles: if a suspect case is reported via phone or email, the actual test specimens may have yet to be collected so the test result would be after the lab report date

Hospital Admission Date

The Issue and Importance of Hospital Admission Date

Hospital admission date is important to capture because it can help approximate and/or determine the onset date, and it can help to determine if infections were acquired in the hospital. It is important to gather all hospital information for cases (such as admission date, discharge date, number of days hospitalized) to help determine the severity of the illness. Follow-up on cases (or outbreaks) of severe illness may need to be prioritized by health departments.

Table 4: Percentage of cases missing hospital admission date for selected diseases and the importance of hospital admission dates.

Disease Group	Disease	Total Number of Cases	Missing Hospital Admission Dates	Importance of Hospital Admission Dates
Foodborne	<i>Campylobacter</i>	335	3.9%	May help approximate onset date, if infections are acquired in the hospital, or severity of illness
	Salmonellosis	207	5.4%	
Vaccine Preventable Disease	Chickenpox	134	0.0%	
Sexually Transmitted Disease	Chlamydia	809	NA	
	Gonorrhea	218	NA	
Other	Legionellosis	103	2.0%	
Vectorborne	Lyme Disease	132	NA	
Meningitis	Invasive <i>Streptococcus pneumoniae</i>	190	1.2%	

Tips for collecting correct hospital dates

- Obtain medical records from the hospital

Control Measures Start Date and Treatment Date

The Issue and Importance of Control Measures Start Date and Treatment Date

The control measures start date field is only available for certain conditions (e.g., Hepatitis A, *Salmonellosis*, Measles, foodborne Botulism, Tularemia, STEC, and Meningococcal disease). The control measures start date for these diseases is **necessary** to complete the PHEP Cooperative Agreement Performance Measures, regarding timeliness for public health interventions. The control measures start date is the date the prevention measures, such as contact tracing, exclusions, education, or other practices are put into place to stop transmission of the organism. It is important to capture this information to determine if effective control measures and mitigation strategies were started in an appropriate timeframe. While the control measures start date field was added to select diseases (examples listed above), it is important to document this information for many more diseases in the comments section or an agreed upon field per local health department protocol.

Treatment date is important to an investigation because it can help determine when cases are no longer contagious, such as with pertussis. Although treatment date field is not available for many diseases, it

is also important to document. This can be done either in the notes or comment section of the details form, the note tab in the case in MDSS, or in a pre-determined field based on the local health department's protocol.

Table 5: Percentage of cases missing control measures start date and treatment date for selected diseases and the importance of dates.

Disease Group	Disease	Total Number of Cases	Missing Treatment Date	Missing Control Measures Date	Importance of Treatment and Control Measures Dates
Foodborne	<i>Campylobacter</i>	335	NA	NA	Ensures control measures are initiated in an appropriate time frame to prevent additional illness
	Salmonellosis	207	NA	19.8%	
Vaccine Preventable Disease	Chickenpox	134	NA	NA	Ensures control measures are initiated in an appropriate time frame to prevent additional illness
Sexually Transmitted Disease	Chlamydia	809	33.4%	NA	Ensures cases were contacted and treated to prevent additional illness
	Gonorrhea	218	33.0%	NA	
Other	Legionellosis	103	NA	NA	Ensures case was treated, and if so, in a timely manner
Vectorborne	Lyme Disease	132	NA	NA	Ensures control measures like education are initiated; treatment date ensures case was treated, and if so, in a timely manner
Meningitis	Invasive <i>Streptococcus pneumoniae</i>	190	NA	NA	Ensures control measure like education and proper hygiene are initiated

Tips for collecting correct control measures and treatment dates

- **Control measures dates:**
 - The control measures start date should be on or after the referral date; In some situations, such as in a large outbreak investigation, the initial public health control measures may start prior to the referral date
 - Additional information can be found in the “Guidance for Public Health Control Measures” tip sheet available from your regional epidemiologist
- **Treatment dates:**
 - If client is seen at the local health department clinic, make sure that treatment date is documented
 - Other sources of information could be obtained from medical records from the health care provider, and/or hospital