Monthly Data Report Form for Carbapenemase-producing Organisms

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| **Data element Name** | **Data element Definition** |
| Program\_or\_pathogen | ARLN program |
| Reported\_to\_submitter\_date | Date reported to the submitter (clinical lab or healthcare facility of origin) by the jurisdictional PHL  Granularity = day |
| Clinical\_sample\_or\_isolate | Indicates whether the specimen received for testing was a clinical sample or an isolate |
| Reporting\_month | This is the year and month this report is counted for CDC reporting; it is based on the date of collection. |
| Patient\_ID | 1.Unique patient ID assigned by the public health department,  2. Unique patient ID assigned by the ARLN testing lab. This could be the Accession number of the isolate tested by PHLab (Also known as the ARLN specimen ID), or  3. Other unique patient ID |
| Patient\_age | Age at specimen collection date |
| Patient\_age\_unit | Could be years, months, days |
| Patient\_sex | This is the administrative sex (PID-8) |
| PHL | The coded representation of any state PHL plus PR and some city labs |
| ARLN\_PHL | The coded representation of the ARLN regional lab |
| Healthcare\_facility\_of\_origin\_ID | All: ID of the Healthcare facility of origin (ad-289) Where patient is located when testing was initiated. Preferred ID type is either the NPI or the Medicare ID (collected by NHSN program, so helpful for linking) |
| Healthcare\_facility\_of\_origin\_name | All: Where the patient was located when testing was initiated.   For CPO Colonization this may be the same “submitter” (duplicate of data contained in Submitter\_facility\_name). Example: Fairview Hospital |
| Healthcare\_facility\_of\_origin\_state | State of the healthcare facility of origin (ad-289) |
| Healthcare\_facility\_of\_origin\_zipcode | Zip code of the healthcare facility of origin (ad-289) |
| Processing\_Laboratory\_ID | CRE/CRPA/CRAB/CPO col This is the ID for the Processing laboratory (ad-192). The preferred identifier type to use is CLIA number, NPI is also allowed. |
| Submitter\_facility\_ID | ID of the submitting facility (ad-124) |
| Submitter\_facility\_name | The name of the facility or clinical laboratory that collected and processed the specimen and sent it (and a request for testing) to the ARLN lab, and to which the testing public health lab is reporting the results back to. |
| Submitter\_facility\_state | State of the submitting facility (ad-124) |
| Submitter\_facility\_zipcode | Zip code of the submitting facility (ad-124) |
| Specimen\_collection\_date | Date or Date/Time specimen collected |
| Specimen\_received\_date | Date or Date/Time specimen received for ARLN testing |
| Submitter\_Specimen\_ID | This is the Specimen ID assigned by the submitting entity (facility, laboratory, etc). This is the placer specimen ID and is populated in SPM-2.1. |
| ARLN\_Specimen\_ID | The ARLN\_Specimen\_ID is the testing lab's specimen ID, this is also the filler specimen ID, which is populated in SPM 2.2. |
| Specimen\_type | Specimen type  This is describing the clinical specimen. |
| Isolate\_forwarded\_to\_RegLab | Identifies that the PHL has forwarded an isolate to an ARLN regional lab for additional testing. |
| Date\_forwarded\_to\_RegLab | The date a PHL has forwarded an isolate to an ARLN regional lab (ad-159) for additional testing. Granularity = day |
| Organism\_tested | Identifies the organism that testing was performed on |
| Confirmed\_carbapenem\_resistant | Was the phenotypic test result confirmed by AST testing (Yes/No) |
| AST\_method\_used | Identifies which method of susceptibility testing was used; e.g. Etest, broth micro dilution, disk diffusion |
| Amikacin\_AST\_MIC | Amikacin MIC |
| Amikacin\_AST\_zone\_diameter | Amikacin zone diameter |
| Ciprofloxacin\_AST\_MIC | Ciprofloxacin MIC |
| Ciprofloxacin\_AST\_zone\_diameter | Ciprofloxacin zone diameter |
| Doxycycline\_AST\_MIC | Doxycycline MIC |
| Doxycycline\_AST\_zone\_diameter | Doxycycline zone diameter |
| Gentamicin\_AST\_MIC | Gentamicin MIC |
| Gentamicin\_AST\_zone\_diameter | Gentamicin zone diameter |
| HP\_Aztreonam\_MIC | Aztreonam MIC by HP printer method |
| HP\_Aztreonam\_Avibactam\_MIC | Aztreonam Avibactam MIC by HP printer method |
| HP\_Ceftazidime\_Avibactam\_MIC | Ceftazidime Avibactam MIC by HP printer method |
| HP\_Ceftazidime\_Aztreonam\_Avibactam\_MIC | Ceftazidime Aztreonam Avibactam MIC by HP printer method |
| HP\_new\_drug\_mic | New drug MIC tested using HP Printer method |
| Aztreonam\_AST\_MIC | Numeric value (SN data type) |
| Aztreonam\_AST\_zone\_diameter | Numeric value (SN data type) |
| Cefepime\_AST\_MIC | Numeric value (SN data type) |
| Cefepime\_AST\_zone\_diameter | Numeric value (SN data type) |
| Cefotaxime\_AST\_MIC | Numeric value (SN data type) |
| Cefotaxime\_AST\_zone\_diameter | Numeric value (SN data type) |
| Cefotaxime\_clavulanate\_AST\_MIC | Numeric value (SN data type) |
| Cefotaxime\_clavulanate\_AST\_zone\_diameter | Numeric value (SN data type) |
| Ceftazidime\_AST\_MIC | Numeric value (SN data type) |
| Ceftazidime\_AST\_zone\_diameter | Numeric value (SN data type) |
| Ceftazidime\_clavulanate\_AST\_MIC | Numeric value (SN data type) |
| Ceftazidime\_clavulanate\_AST\_zone\_diameter | Numeric value (SN data type) |
| Ceftriaxone\_AST\_MIC | Numeric value (SN data type) |
| Ceftriaxone\_AST\_zone\_diameter | Numeric value (SN data type) |
| Colistin\_AST\_MIC | Numeric value (SN data type) |
| Doripenem\_AST\_MIC | Numeric value (SN data type) |
| Doripenem\_AST\_zone\_diameter | Numeric value (SN data type) |
| Ertapenem\_AST\_MIC | Numeric value (SN data type) |
| Ertapenem\_AST\_zone\_diameter | Numeric value (SN data type) |
| Imipenem\_AST\_MIC | Numeric value (SN data type) |
| Imipenem\_AST\_zone\_diameter | Numeric value (SN data type) |
| Meropenem\_AST\_MIC | Numeric value (SN data type) |
| Meropenem\_AST\_zone\_diameter | Numeric value (SN data type) |
| Piperacillin\_tazobactam\_AST\_MIC | Numeric value (SN data type) |
| Piperacillin\_tazobactam\_AST\_zone\_diameter | Numeric value (SN data type) |
| Other\_3rdGen\_cephalosporin\_name | If another 3rd generation cephalosporin was tested, specify its name |
| Other\_3rdGen\_cephalosporin\_AST\_MIC | Numeric value (SN data type) |
| Other\_3rdGen\_cephalosporin\_AST\_zone\_diameter | Susceptibility result for other 3rd generation cephalosporin. Method is disk diffusion |
| Other\_new\_drug | New drug name |
| Other\_new\_drug\_result | New drug MIC/Zone diameter results |
| PCR\_method\_used | Identifies which PCR test method was used; e.g. Cepheid Xpert Carba-R assay, CDC assay, Other assay. |
| IMP\_gene | Result of PCR for IMP carbapenemase gene |
| KPC\_gene | Result of PCR for KPC carbapenemase gene |
| mcr\_1\_gene | Result of PCR for mcr-1 mobile colistin resistance gene |
| mcr\_2\_gene | Result of PCR for mcr-2 mobile colistin resistance gene |
| mcr\_3\_gene | Result of PCR for mcr-3 mobile colistin resistance gene |
| mcr\_4\_gene | Result of PCR for mcr-4 mobile colistin resistance gene |
| NDM\_gene | Result of PCR for NDM carbapenemase gene |
| OXA\_48\_like\_gene | Result of PCR for OXA-48-like carbapenemase gene |
| OXA\_24\_40\_gene | Result of PCR for OXA-24/40-like carbapenemase gene |
| OXA\_58\_gene | Result of PCR for OXA-58-like carbapenemase gene |
| OXA\_235\_gene | Result of PCR for OXA-235-like carbapenemase gene |
| OXA\_23\_gene | Provisional definition: Result of PCR for OXA-23-like carbapenemase gene |
| VIM\_gene | Result of PCR for VIM carbapenemase gene |
| Other\_gene\_name | Free text entry to name the carbapenemase gene that was tested for, that is not pre-defined. |
| Other\_gene\_result | Result of PCR for other carbapenemase gene |
| WGS\_SRA | NCBI SRA Accession number (SRX#), is one of the IDs generated by NCBI when public health labs upload whole genome sequence data to NCBI. This provides access to both the sequence data and metadata connected with the isolate and serves as the link between sequencing data and phenotypic data generated for each isolate. |
| WGS\_MetaData | any data associated with the WGS isolates |
| Outbreak\_ID | ID assigned to isolates for outbreak purposes |
| RegLab\_comment | Any comment from the ARLN Regional Lab |
| Index\_case\_information | Elements associated with index case that initiates screening in a facility (may include organism, resistance mechanisms, public health ID, or facility ID). |
| phenotypic\_test\_result | Result of the mCIM or Carba NP carbapenemase test. |
| Plazomicin\_MIC | Plazomicin [Susceptibility] by Minimum inhibitory concentration (MIC) |
| Plazomicin\_zd | Plazomicin [Susceptibility] by Disk Diffusion (KB) |
| Polymixin\_B\_MIC | Polymyxin B [Susceptibility] by Minimum inhibitory concentration (MIC) |
| Polymixin\_B\_zd | Polymyxin B [Susceptibility] by Disk diffusion (KB) |
| processing\_laboratory\_id\_assigner | The organization or system that assigned the Laboratory Identifier |
| protein\_test\_method | Identifies what protein detection method was used - e.g. Carba 5. This element has been replaced by Test\_method. |
| reason\_for\_study | Reason for testing by the AR lab |
| reglab\_comment\_obr | Any comment from the testing Lab |
| reglab\_comment\_obx | Any comment from the testing Lab |
| reglab\_comment\_pid | Any comment from the testing Lab |
| reglab\_comment\_pid  reglab\_comment\_obr  reglab\_comment\_obx | Any comment from the testing Lab |
| sending\_facility | The coded representation of any state PHL plus PR and some city labs that are performing ARLN testing (includes the ARLN Regional Labs (previously the ARLN\_PHL data element)) |
| sim\_gene | Result of PCR for SIM carbapenemase gene |
| specimen\_type\_free\_text | Specimen type   This is describing the clinical specimen. |
| spm\_gene | Result of PCR for SPM carbapenemase gene |
| srr\_number | Sequence Read Run (SRR) Number uniquely identifies an individual sequence obtained during one rune of the experiment (linked to SRX). |
| submitter\_facility\_name | For CPO Colonization: The name of the facility that collected and processed the specimen and sent it (and a request for testing) to the ARLN regional lab; e.g. the organization who enters the order into the portal for CPO Colonization. This can be either the Healthcare Facility of origin (ad-289), or the Public Health Department (ad-295)  For CRE/CRPA/Act2: The name of the clinical laboratory (ad-NEW), defined as a hospital or external reference laboratory that the testing lab is reporting the results back to.  For MDB: The name of the Public Health laboratory (ad-285), that the testing lab is reporting the results back to.  For GC: The coded representation of the Jurisdiction\_PHL (ad-187) or the GC\_facility name (ad-302), that the testing lab is reporting the results back to. |
| submitter\_specimen\_id\_assigner1 | The organization or system that assigned the specimen identifier |
| submitter\_specimen\_id\_assigner2 | The organization or system that assigned the specimen identifier |
| test\_method | CPO Col/CRE/CRPA/Act2:  Identifies which method was used for testing  For susceptibility testing e.g. Etest, broth micro dilution, disk diffusion, for PCR e.g. Cepheid Xpert Carba-R assay, CDC assay, Other assay or for phenotypic testing e.g. mCIM, CIM or Carba NP |
| test\_performed | This describes the data element to be collected. It can be used as a generic for NEW tests |
| Tetracycline\_MIC | Tetracycline [Susceptibility] by Minimum inhibitory concentration (MIC) |
| Tetracycline\_zd | Tetracycline [Susceptibility] by Disk diffusion (KB) |
| Ticarcillin\_Clavulanate\_Constant2\_MIC | Ticarcillin+Clavulanate [Susceptibility] by Minimum inhibitory concentration (MIC) |
| Ticarcillin\_Clavulanate\_Constant2\_zd | Ticarcillin+Clavulanate [Susceptibility] by Disk diffusion (KB) |
| Tigecycline\_MIC | Tigecycline [Susceptibility] by Minimum inhibitory concentration (MIC) |
| Tigecycline\_zd | Tigecycline [Susceptibility] by Disk diffusion (KB) |
| Tobramycin\_MIC | Tobramycin [Susceptibility] by Minimum inhibitory concentration (MIC) |
| Tobramycin\_zd | Tobramycin [Susceptibility] by Disk diffusion (KB) |
| Trimethoprim\_Sulfamethoxazole\_MIC | Trimethoprim+Sulfamethoxazole [Susceptibility] by Minimum inhibitory concentration (MIC) |
| Trimethoprim\_Sulfamethoxazole\_zd | Trimethoprim+Sulfamethoxazole [Susceptibility] by Disk diffusion (KB) |
| vim\_protein | Result of Rapid Immunoassay for VIM |
| wgs\_date\_id\_created | Date the WGS ID was created |
| wgs\_date\_put\_on\_sequencer | Date the sample was placed on the sequencing instrument |
| wgs\_date\_sent\_to\_seqfac | Date the sample was sent to the core sequencing facility within the PHL |
| wgs\_id | Lab assigned Sequence ID: this is the ID used by the lab to upload the sequencing data to the national repositories (e.g., GISAID, NCBI Gene Bank) and will be useful in retrieving more data about the variant from those repositories as it will be incorporated into the virus name for the sequence. |