

Value Sets and Informational Links for Providers for Zika Virus Evaluation Algorithm

Algorithm Step	Description of Information Requirements	Type of Information	Links
P1	All Women of Child-Bearing Age and Male Sexual Partners of Women of Childbearing Age		
D1	Areas with active Zika transmission	Value Set: PHVS_ZikaAffectedAreas_CDC [2.16.840.1.114222.4.11.7457] Value set is updated based on the most current travel notice from CDC Zika virus disease website	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7457
		Informational: Areas with Zika Risk - Zika-affected areas.	http://www.cdc.gov/mmwr/zika_reports.html
P2	Travel and Mosquito Prevention Advice	Value Set: Insect Repellent – No Value set currently available for pregnancy-safe mosquito repellent products.	
		Informational: Avoid Mosquito bites - CDC	http://www.cdc.gov/mmwr/zika_reports.html
		Informational: Find the EPA registered insect repellent. CDC vocabulary team is collaborating with EPA to identify pregnancy safe insect repellent search in EPA site. (DEET, IR3535 and Picaridin are safe during pregnancy as referenced in the CDC interim guideline)	https://www.epa.gov/insect-repellents/using-repellent-products-protect-against-mosquito-borne-illnesses
D2	Known pregnant	Pregnancy determination is at the discretion of the patient and the provider	

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		Informational: Interim Guidelines for Prevention of Sexual Transmission of Zika Virus — United States, 2016	http://www.cdc.gov/mmwr/zika_reports.html
P3	Determine if Pregnant	Pregnancy determination is at the discretion of the patient and the provider	
P4	Confer with State Health Department Regarding Zika Virus Testing	Contact State Health Department	
P5	Test(s) for Zika Virus – 1 st visit for resident of area with active Zika transmission	Value Set: Zika Virus tests (RT-PCR, Neutralizing Antibodies, IgM) PHVS_LabTestName_ZikaVirus [2.16.840.1.114222.4.11.7480] <i>[Need to subset only Zika Virus IgM studies]</i>	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7480
D3	Symptoms of Zika Virus Infection	Value Set: PHVS_SignsSymptoms_Zika [2.16.840.1.114222.4.11.7459]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7459
		Informational: Signs and Symptoms of Zika virus disease.	http://www.cdc.gov/mmwr/zika_reports.html
		For comparison --- Value Set: PHVS_SignsSymptoms_Arbovirus [2.16.840.1.114222.4.11.7460] Signs and Symptoms of Arboviral diseases. This value set would be used for public health case notification and includes signs and symptoms of Dengue, Chikungunya and Zika.	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7460
P6	<ul style="list-style-type: none"> Pregnancy dating & fetal ultrasound @ 18-20 wks gestation to assess fetal anatomy. 	Value Set: Fetal Ultrasound LOINC Code = 12129-3 LOINC Concept Name = Fetal [Interpretation] Study observation general US	LOINC Code Hyperlink - http://s.details.loinc.org/LOINC/12129-3.html?sections=Simple

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		LOINC Code System OID: 2.16.840.1.113883.6.1 [Value Set for Fetal Ultrasound CPT Codes Pending]	
		Fetal Ultrasound Result – Value: Microcephaly SNOMED Code = 431265009 SNOMED Concept Name = Fetal microcephaly (disorder) SNOMED-CT Code System OID: 2.16.840.1.11.3883.6.96	SNOMED Code System Concept link in PHIN VADS - https://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.96&code=431265009
		Fetal Ultrasound Result – Value: Intracranial calcifications CDC PHINVS Local Code =PHC1444 CDC PHIN VS Concept Name = Fetal Intracranial Calcification PHIN-VADS Code System OID = 2.16.840.1.114222.4.5.274	CDC PHIN VS local code = https://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.114222.4.5.274&code=PHC1444 [Pending new SNOMED Code]
		Informational: Microcephaly	http://www.cdc.gov/mmwr/zika_reports.html
		Informational: Possible association between Zika virus infection and microcephaly	http://www.cdc.gov/mmwr/zika_reports.html
		Informational: Fetal Ultrasound (patient-level)	https://www.nlm.nih.gov/medlineplus/ency/article/003778.htm
	<ul style="list-style-type: none"> Repeat Zika IgM mid-2nd or early 3rd trimester if still in Zika-prone area. 	Value Set: Zika Virus tests (RT-PCR, Neutralizing Antibodies, IgM) PHVS_LabTestName_ZikaVirus [2.16.840.1.114222.4.11.7480] [Need to subset only Zika Virus IgM studies]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7480

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	<ul style="list-style-type: none"> Consider repeat fetal ultrasound later in pregnancy -- fetal microcephaly is most easily detected in late 2nd and early 3rd trimester 	Value Set: Fetal Ultrasound LOINC Code = 12129-3 LOINC Concept Name = Fetal [Interpretation] Study observation general US LOINC Code System OID: 2.16.840.1.113883.6.1 <i>[Value Set for Fetal Ultrasound CPT Codes Pending]</i>	LOINC Code Hyperlink - http://s.details.loinc.org/LOINC/12129-3.html?sections=Simple
P6	Test for Zika Virus 1 st week of illness – <ul style="list-style-type: none"> Onset prior week: RT-PCR Symptoms \geq 4 days IgM and neutralizing antibody test Test for Zika Virus Infection 2-12 weeks after return from travel – <ul style="list-style-type: none"> RT-PCR Test 	Value Set: Zika Virus tests (RT-PCR, Neutralizing Antibodies, IgM) PHVS_LabTestName_ZikaVirus [2.16.840.1.114222.4.11.7480] <i>[Need to subset only Zika Virus IgM studies]</i>	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7480
		Value Set: PHVS_LabTestName_Arbovirus [2.16.840.1.114222.4.11.4120]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.4120
		Value Set: PHVS_LabTestName_Chikungunya [2.16.840.1.114222.4.11.7339]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7339
		Value Set: PHVS_LabTestName_Dengue [2.16.840.1.114222.4.11.4141]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.4141
		Informational: Zika Virus Diagnostic Testing	http://www.cdc.gov/mmwr/zika_reports.html

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		Informational: Zika virus diagnostic guidance for State Public Health Labs	http://www.cdc.gov/mmwr/zika_reports.html
P7	Supportive Care: Rest, Fluids, Analgesics, Antipyretics (Avoid aspirin/NSAIDs in case of dengue)	Value Set: PHVS_DrugDiseaseInteraction_Dengue [2.16.840.1.114222.4.11.7467] { Drugs to avoid due to risk of dengue fever – Aspirin and NSAID} The value set is currently based on SNOMED-CT. A new value set will be created based on RxNorm.	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7467
		Informational: Symptoms, Diagnosis and Treatment	http://www.cdc.gov/mmwr/zika_reports.html
D5	Zika Virus Result	Value Set: Zika Virus IgM ELISA Results PHVS_PosNegEquivNotDone_CDC [2.16.840.1.114222.4.11.7476] This value set is intended for use in electronic laboratory reporting based on the results received from the laboratory. The laboratory may also report a quantitative titer if applicable.	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7476
		Value Set: Zika Virus Neutralizing Antibody Results PHVS_PosNeg4FoldRiseNotDone_CDC [2.16.840.1.114222.4.11.7477] This value set is intended for use in electronic laboratory reporting based on the results received from the laboratory. The laboratory may also report a quantitative titer if applicable.	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7477
		Value Set: PHVS_LabResult_Arbovirus [2.16.840.1.114222.4.11.4003]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.4003
		Value Set: PHVS_LabResult_Chikungunya [2.16.840.1.114222.4.11.7343]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7343

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		This value set is intended for use in electronic laboratory reporting based on the results received from the laboratory. The laboratory may also report a quantitative titer if applicable.	
		Value Set: PHVS_LabResult_Dengue [2.16.840.1.114222.4.11.4025] This value set is intended for use in electronic laboratory reporting based on the results received from the laboratory. The laboratory may also report a quantitative titer if applicable.	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.4025
		Informational: Zika Virus Diagnostic Testing	http://www.cdc.gov/mmwr/zika_reports.html
		Informational: Zika virus diagnostic guidance for State Public Health Labs	http://www.cdc.gov/mmwr/zika_reports.html
D6	Fetal Ultrasound Positive Result: Microcephaly or Intracranial Calcifications	Fetal Ultrasound Result – Value: Microcephaly SNOMED Code = 431265009 SNOMED Concept Name = Fetal microcephaly (disorder) SNOMED-CT Code System OID: 2.16.840.1.11.3883.6.96	SNOMED Code System Concept link in PHIN VADS - https://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.96&code=431265009
		Fetal Ultrasound Result – Value: Intracranial calcifications CDC PHINVS Local Code =PHC1444 CDC PHIN VS Concept Name = Fetal Intracranial Calcification PHIN-VADS Code System OID = 2.16.840.1.114222.4.5.274	CDC PHIN VS local code = https://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.114222.4.5.274&code=PHC1444 [Pending new SNOMED Code]

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		Informational: Microcephaly	http://www.cdc.gov/ncbddd/birthdefects/microcephaly.html
		Informational: Possible association between Zika virus infection and microcephaly	http://www.cdc.gov/mmwr/volumes/65/wr/mm6503e2.htm?s_cid=mm6503e2.htm_w
		Informational: Fetal Ultrasound (patient-level)	https://www.nlm.nih.gov/medlineplus/ency/article/003778.htm
P8	Amniocentesis for pregnancy \geq 15 weeks gestation	Value Set: Amniocentesis SNOMED code = 34536000 SNOMED Concept name = Amniocentesis (procedure) SNOMED-CT Code System OID: 2.16.840.1.11.3883.6.96 [CPT Value Set Pending]	SNOMED code system concept link in PHIN VADS. https://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.96&code=34536000
		Value Set: PHVS_SpecimenType_Zika List of specimens associated with Zika laboratory tests. This includes specimen from mother as well as fetus, infant as well as acute, convalescent specimens. It is not inclusive of histopathologic examination. [2.16.840.1.114222.4.11.7463]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7463
P9	Refer to Maternal-Fetal Specialist or Infectious Disease Specialist	Maternal-Fetal Medicine NUCC Provider Code = 207VM0101X NUCC Provider Concept Name = Maternal & Fetal Medicine [Allopathic & Osteopathic Physicians\Obstetrics & Gynecology]	NUCC Provider Codes (part of provider taxonomy) link in PHIN VADS - https://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.101&code=207VM0101X For latest version of NUCC provider codes, please browse provider taxonomy at NUCC site -

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			http://www.nucc.org/index.php?option=com_wrapper&view=wrapper&Itemid=126
		Infectious Disease Specialist NUCC Provider Code = 207RI0200X NUCC Provider Concept Name = Infectious Disease [Allopathic & Osteopathic Physicians\Internal Medicine]	NUCC Provider Codes (part of provider taxonomy) link in PHIN VADS - https://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.101&code=207RI0200X For latest version of NUCC provider codes, please browse provider taxonomy at NUCC site - http://www.nucc.org/index.php?option=com_wrapper&view=wrapper&Itemid=126
D7	Pregnancy Outcome	Value Set: Pregnancy Outcome [<i>Value Set Pending</i>]	
P10	Zika Virus Testing for Live Birth	Value Set: PHVS_SpecimenType_Zika List of specimens associated with Zika laboratory tests. This includes specimen from mother as well as fetus, infant as well as acute, convalescent specimens. It is not inclusive of histopathologic examination. [2.16.840.1.114222.4.11.7463]	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7463
		Informational: Interim Guidelines for the Evaluation and Testing of Infants with Possible Congenital Zika Virus Infection — United States, 2016	http://www.cdc.gov/mmwr/zika_reports.html
P11	Zika Virus Testing for Products of Non-Live Pregnancy Product	Confer with State Health Department	

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P12	Live Birth, Appears Healthy, Unknown if infected	Confer with State Health Department	