

**Chapter 246-650 WAC
NEWBORN SCREENING**

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WAC

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DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

246-650-030 Implementation of screening to detect amino acid disorders, fatty acid oxidation disorders and organic acid disorders. [Statutory Authority: Chapter 70.83 RCW. WSR 08-13-073, § 246-650-030, filed 6/16/08, effective 7/17/08. Statutory Authority: Chapters 70.83, 43.20 RCW. WSR 06-04-009, § 246-650-030, filed 1/20/06, effective 2/20/06; WSR 03-24-026, § 246-650-030, filed 11/24/03, effective 12/25/03. Statutory Authority: RCW 43.20.050. WSR 91-02-051 (Order 124B), recodified as § 246-650-030, filed 12/27/90, effective 1/31/91. Statutory Authority: Chapters 43.20 and 70.83 RCW. WSR 91-01-032 (Order 114B), § 248-103-040, filed 12/11/90, effective 1/11/91.] Repealed by WSR 13-24-072, filed 11/26/13, effective 1/1/14. Statutory Authority: RCW 70.83.020.

WAC 246-650-001 Purpose. The purpose of this chapter is to establish board rules to detect, in newborns, congenital disorders leading to developmental or physical disabilities as required by RCW 70.83.050 and to provide protections for the confidentiality of information and human biological specimens submitted pursuant to these requirements.

[Statutory Authority: RCW 70.83.050, 70.83.090 and 70.83.020. WSR 19-20-025, § 246-650-001, filed 9/23/19, effective 10/24/19. Statutory Authority: Chapters 70.83, 43.20 RCW. WSR 03-24-026, § 246-650-001, filed 11/24/03, effective 12/25/03. Statutory Authority: RCW 43.20.050. WSR 91-02-051 (Order 124B), recodified as § 246-650-001, filed 12/27/90, effective 1/31/91. Statutory Authority: RCW 43.20.050 and 70.83.050. WSR 87-11-040 (Order 303), § 248-103-001, filed 5/18/87.]

WAC 246-650-010 Definitions. The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Amino acid disorders" means arginininosuccinic acidemia (ASA), citrullinemia type I (CIT), homocystinuria (HCY), maple syrup urine disease (MSUD), phenylketonuria (PKU), and tyrosinemia type I (TYR I), which may cause severe complications including intellectual disability, coma, seizures, and possibly death.

(2) "Board" means the Washington state board of health.

(3) "Biotinidase deficiency" means a deficiency of an enzyme (biotinidase) that facilitates the body's recycling of biotin. The result is biotin deficiency, which if undetected and untreated, may result in severe neurological damage or death.

(4) "Congenital adrenal hyperplasia" means a severe disorder of adrenal steroid metabolism which may result in death of an infant during the neonatal period if undetected and untreated.

(5) "Congenital hypothyroidism" means a disorder of thyroid function during the neonatal period causing impaired mental functioning if undetected and untreated.

(6) "Critical congenital heart disease" means an abnormality in the structure or function of the heart that exists at birth, causes severe, life-threatening symptoms, and requires medical intervention within the first year of life.

(7) "Cystic fibrosis" means a life-shortening disorder caused by mutations in the gene encoding the cystic fibrosis transmembrane conductance regulator (CFTR), a transmembrane protein involved in ion transport. Affected individuals suffer from chronic, progressive pulmonary disease and nutritional deficits. Early detection and enrollment in a comprehensive care system provides improved outcomes and avoids the significant nutritional and growth deficits that are evident when diagnosed later.

(8) "Department" means the Washington state department of health.

(9) "Fatty acid oxidation disorders" means carnitine uptake defect (CUD), long-chain L-3-OH acyl-CoA dehydrogenase deficiency (LCHADD), medium-chain acyl-CoA dehydrogenase deficiency (MCADD), trifunctional protein deficiency (TFP), and very long-chain acyl-CoA dehydrogenase deficiency (VLCADD). These disorders can lead to hypoglycemia and metabolic crises resulting in serious damage affecting the brain, liver, heart, eyes, muscle, and possibly death.

(10) "Galactosemia" means a deficiency of enzymes that help the body convert the simple sugar galactose into glucose resulting in a buildup of galactose and galactose-1-PO₄ in the blood. If undetected and untreated, accumulated galactose-1-PO₄ may cause significant tissue and organ damage often leading to sepsis and death.

(11) "Hemoglobinopathies" means a group of hereditary blood disorders caused by genetic alteration of hemoglobin which results in characteristic clinical and laboratory abnormalities and which leads to developmental impairment or physical disabilities.

(12) "Newborn" means an infant born in any setting in the state of Washington.

(13) "Newborn screening specimen/information form" means a form provided by the department for collecting a newborn's dried blood spots and information used to screen for congenital disorders under this chapter. This includes the filter paper portion and associated dried blood spots.

(14) "Mucopolysaccharidosis I (MPS-I)" means a multisystem disorder caused by mutations in the alpha-L-iduronidase gene in which a lysosomal enzyme is deficient, leading to accumulation of mucopolysaccharides (a type of carbohydrate) and other metabolites. This includes Hurler, Hurler-Scheie, and Scheie syndromes.

(15) "Organic acid disorders" means 3-OH 3-CH₃ glutaric aciduria (HMG), beta-ketothiolase deficiency (BKT), glutaric acidemia type I (GA 1), isovaleric acidemia (IVA), methylmalonic acidemia (CblA,B), methylmalonic acidemia (mutase deficiency) (MUT), multiple carboxylase deficiency (MCD), and propionic acidemia (PROP). These disorders can lead to metabolic crises resulting in severe nerve damage, physical damage, and possibly death.

(16) "Pompe disease" means a neuromuscular disorder caused by mutations in the acid glucosidase gene which result in reduced or absent activity of the acid alpha glucosidase enzyme.

(17) "Significant screening test result" means a laboratory test result indicating a suspicion of abnormality and requiring diagnostic evaluation of the involved infant for a specific congenital disorder.

(18) "Severe combined immunodeficiency (SCID)" means a group of congenital disorders characterized by profound deficiencies in T- and

B- lymphocyte function. This results in very low or absent production of the body's primary infection fighting processes that, if left untreated, results in severe recurrent, and often life-threatening infections within the first year of life.

(19) "X-linked adrenoleukodystrophy (X-ALD)" means a peroxisomal disorder caused by mutations in the ABCD1 gene located on the X chromosome. If untreated this can lead to adrenocortical deficiency, damage to the nerve cells of the brain, paralysis of the lower limbs, mental decline, disability, or death.

[Statutory Authority: RCW 70.83.050, 70.83.090 and RCW 70.83.020. WSR 19-20-025, § 246-650-010, filed 9/23/19, effective 10/24/19. Statutory Authority: RCW 70.83.050 and 70.83.020. WSR 18-01-024, § 246-650-010, filed 12/8/17, effective 3/1/18. Statutory Authority: Chapter 70.83 RCW. WSR 14-21-017, § 246-650-010, filed 10/2/14, effective 11/2/14. Statutory Authority: RCW 70.83.020. WSR 13-24-072, § 246-650-010, filed 11/26/13, effective 1/1/14. Statutory Authority: Chapter 70.83 RCW. WSR 08-13-073, § 246-650-010, filed 6/16/08, effective 7/17/08. Statutory Authority: Chapters 70.83, 43.20 RCW. WSR 06-04-009, § 246-650-010, filed 1/20/06, effective 2/20/06; WSR 03-24-026, § 246-650-010, filed 11/24/03, effective 12/25/03. Statutory Authority: RCW 43.20.050. WSR 91-02-051 (Order 124B), recodified as § 246-650-010, filed 12/27/90, effective 1/31/91. Statutory Authority: Chapters 43.20 and 70.83 RCW. WSR 91-01-032 (Order 114B), § 248-103-010, filed 12/11/90, effective 1/11/91. Statutory Authority: RCW 43.20.050 and 70.83.050. WSR 87-11-040 (Order 303), § 248-103-010, filed 5/18/87.]

WAC 246-650-020 Performance of screening tests. (1) Hospitals and other providers of birth and delivery services or neonatal care to infants shall:

(a) Inform parents or guardians, by providing a departmental information pamphlet or by other means, of:

(i) The purpose of screening newborns for congenital disorders;

(ii) Disorders of concern as listed in WAC 246-650-020(2);

(iii) The requirement for newborn screening;

(iv) The legal right of parents or guardians to refuse testing because of religious tenets or practices as specified in RCW 70.83.020; and

(v) The specimen storage, retention and access requirements specified in WAC 246-650-050.

(b) Obtain a blood specimen for laboratory testing as specified by the department from each newborn no later than forty-eight hours following birth.

(c) Use department-approved newborn screening specimen/information forms and directions for obtaining specimens.

(d) Enter all identifying and related information required on the newborn screening specimen/information form following directions of the department.

(e) In the event a parent or guardian refuses to allow newborn screening, obtain signatures from parents or guardians on the newborn screening specimen/information form.

(f) Forward the newborn screening specimen/information form with dried blood spots or signed refusal to the Washington state public health laboratory so that it will be received no later than seventy-

two hours following collection of the specimen, excluding any day that the state laboratory is closed.

(2) Upon receipt of specimens, the department shall:

(a) Record the time and date of receipt;

(b) Perform appropriate screening tests for:

(i) Amino acid disorders;

(ii) Biotinidase deficiency;

(iii) Congenital hypothyroidism;

(iv) Congenital adrenal hyperplasia;

(v) Cystic fibrosis;

(vi) Fatty acid oxidation disorders;

(vii) Galactosemia;

(viii) Hemoglobinopathies;

(ix) Mucopolysaccharidosis type I (MPS-I);

(x) Organic acid disorders;

(xi) Pompe disease;

(xii) Severe combined immunodeficiency (SCID);

(xiii) X-linked adrenoleukodystrophy (X-ALD).

(c) Report significant screening test results to the infant's attending health care provider or parent or guardian if an attending health care provider cannot be identified; and

(d) Offer diagnostic and treatment resources to health care providers attending infants with significant screening test results within limits determined by the department.

(3) Once the department notifies the attending health care provider of significant screening test results, the attending health care provider shall notify the department of the date upon which the results were disclosed to the parent or guardian of the infant. This requirement expires January 1, 2020.

[Statutory Authority: RCW 70.83.050, 70.83.090 and RCW 70.83.020. WSR 19-20-025, § 246-650-020, filed 9/23/19, effective 10/24/19. Statutory Authority: RCW 70.83.050 and 70.83.020. WSR 18-01-024, § 246-650-020, filed 12/8/17, effective 3/1/18. Statutory Authority: Chapter 70.83 RCW. WSR 14-21-017, § 246-650-020, filed 10/2/14, effective 11/2/14. Statutory Authority: RCW 70.83.020. WSR 13-24-072, § 246-650-020, filed 11/26/13, effective 1/1/14. Statutory Authority: Chapter 70.83 RCW. WSR 08-13-073, § 246-650-020, filed 6/16/08, effective 7/17/08. Statutory Authority: Chapters 70.83, 43.20 RCW. WSR 06-04-009, § 246-650-020, filed 1/20/06, effective 2/20/06; WSR 03-24-026, § 246-650-020, filed 11/24/03, effective 12/25/03. Statutory Authority: RCW 43.20.050 and 70.83.050. WSR 92-02-019 (Order 225B), § 246-650-020, filed 12/23/91, effective 1/23/92. Statutory Authority: RCW 43.20.050. WSR 91-02-051 (Order 124B), recodified as § 246-650-020, filed 12/27/90, effective 1/31/91. Statutory Authority: Chapters 43.20 and 70.83 RCW. WSR 91-01-032 (Order 114B), § 248-103-020, filed 12/11/90, effective 1/11/91. Statutory Authority: RCW 43.20.050 and 70.83.050. WSR 87-11-040 (Order 303), § 248-103-020, filed 5/18/87.]

WAC 246-650-035 Screening for critical congenital heart disease.

(1) Prior to a hospital discharge of a newborn, the hospital shall ensure that:

(a) A licensed health care provider perform critical congenital heart disease screening on the newborn using pulse oximetry according to recommended American Academy of Pediatrics guidelines;

(b) Record the results of the critical congenital heart disease screening test in the newborn's medical record; and

(c) If the screening test indicates a suspicion of abnormality, refer the newborn for appropriate care and report the test results to the newborn's attending health care provider and parent, parents, or guardian.

(2)(a) Except as provided in (b) of this subsection, a health care provider attending a birth outside of a hospital shall, between twenty-four and forty-eight hours after the birth of the newborn:

(i) Perform critical congenital heart disease screening on the newborn using pulse oximetry according to recommended American Academy of Pediatrics guidelines;

(ii) Record the results of the critical congenital heart disease screening test in the newborn's medical record; and

(iii) If the screening test indicates a suspicion of abnormality, refer the newborn for appropriate care and report the test results to the newborn's attending health care provider and parents or guardians.

(b) If the health care provider does not perform the test required in (a) of this subsection because he or she does not possess the proper equipment, the health care provider shall notify the parents or guardians in writing that the health care provider was unable to perform the test and that the newborn should be tested by another health care provider no sooner than twenty-four hours after the birth, but no later than forty-eight hours after the birth.

(3) A health care provider may not test a newborn as required by this section if the parents or guardians object to the test based on religious beliefs.

[Statutory Authority: RCW 70.83.050, 70.83.090 and RCW 70.83.020. WSR 19-20-025, § 246-650-035, filed 9/23/19, effective 10/24/19.]

WAC 246-650-040 Reports to the board and the public. (1) The department shall report to the board annually the following information concerning tests conducted under WAC 246-650-020:

(a) The costs of tests as charged by the department;

(b) The results of each category of tests, by county of birth and racial or ethnic group, as reported on the newborn screening specimen/information form; and

(c) Follow-up procedures and the results of such follow-up procedures.

(2) The department shall compile an annual report for the public that includes:

(a) The compliance rate of each hospital in meeting the deadlines established under RCW 70.83.020 for newborn screenings; and

(b) The performance rate of each individual hospital.

(3) The reports must be made available in a format that does not disclose the identifying information related to any infant, parent or guardian, or health care provider.

(4) The report must be posted in an accessible location on the department of health's website.

[Statutory Authority: RCW 70.83.050, 70.83.090 and RCW 70.83.020. WSR 19-20-025, § 246-650-040, filed 9/23/19, effective 10/24/19. Statutory Authority: Chapter 70.83 RCW. WSR 14-21-017, § 246-650-040, filed 10/2/14, effective 11/2/14. Statutory Authority: Chapters 70.83, 43.20

WAC 246-650-050 Privacy and security of newborn screening specimen/information forms. The newborn screening specimen/information form submitted to the department pursuant to WAC 246-650-020 becomes the property of the state of Washington upon receipt by the Washington state public health laboratory. The department shall protect the privacy of newborns and their families and assure that all specimen/information forms submitted for screening are protected from inappropriate use or access. A newborn specimen/information form contains health care information that is confidential under chapter 70.02 RCW.

(1) Storage: The newborn screening specimen/information forms shall be kept at ambient temperature in secured storage to preserve their confidentiality and prevent access by unauthorized persons.

(2) Retention/destruction: The newborn screening specimen/information form shall be retained until the child is twenty-one years old in accordance with the requirements for hospitals specified in RCW 70.41.190. After this time the department shall destroy the form.

EXCEPTION FOR PARENTAL REQUEST: Upon request of a parent or guardian (or a patient who is over the age of eighteen years), the department shall destroy the newborn screening specimen/information form only after all required screening tests have been performed and if the patient's screening/clinical status related to these tests is not in question.

(3) Access: Access to stored newborn screening specimen/information forms must be restricted to department employees and those contractors or others approved by the department as necessary to meet specific program needs. Access is contingent upon compliance with all applicable federal and state laws, regulations, and policies safeguarding the privacy and confidentiality of medical information. The department shall assure that those granted access understand the confidentiality requirements and have a signed confidentiality agreement on file.

(4) Release: Dried blood spot samples and specimen information may only be released when required by state or federal law or under the following conditions:

(a) A sample from a specimen and copies of associated identifying information (patient information and testing results, if requested) may be released to:

(i) A health care provider at the request of the patient or his or her legal representative after completing and signing a written request form approved by the department. The release form must be provided to the director of newborn screening before the request will be fulfilled.

(ii) A researcher with the written, informed consent of the patient or the patient's legal representative as part of a research project that has been reviewed and approved by the Washington state institutional review board and the secretary or designee of the department.

(iii) A named person in a legally executed subpoena following review and approval of the state attorney general.

(iv) A person to whom release is mandated by order of a court of competent jurisdiction.

(b) Anonymous samples may be released if the department determines that the intended use has significant potential health benefit and that each of the following criteria have been met:

(i) The investigation design is adequate to assure anonymity will be preserved.

(ii) All newborn screening tests have been completed and the status of the infant is resolved.

(iii) At least one fully adequate spot will remain after the anonymous sample has been taken.

(iv) Sufficient resources (personnel) are available for extracting the samples.

(v) The Washington state institutional review board has reviewed and approved the investigation. This requirement may be waived by the department for a very small (i.e., less than 100 sample) pilot study where the intent is to evaluate a testing tool, as opposed to an evaluation where the intent is to measure some characteristic of a population.

(5) Notification: The department shall notify parents or guardians of the specimen storage, retention/destruction and access requirements through the department's newborn screening informational pamphlet.

[Statutory Authority: RCW 70.83.050, 70.83.090 and RCW 70.83.020. WSR 19-20-025, § 246-650-050, filed 9/23/19, effective 10/24/19. Statutory Authority: Chapters 70.83, 43.20 RCW. WSR 03-24-026, § 246-650-050, filed 11/24/03, effective 12/25/03.]

WAC 246-650-990 Screening charge. The department has authority under RCW 43.20B.020 to require a reasonable charge from parents, guardians, or responsible parties for the costs of newborn screening. The charge is to be collected through the facility where the specimen was obtained.

[Statutory Authority: RCW 70.83.050, 70.83.090 and RCW 70.83.020. WSR 19-20-025, § 246-650-990, filed 9/23/19, effective 10/24/19. Statutory Authority: RCW 70.83.040. WSR 99-20-036, § 246-650-990, filed 9/29/99, effective 10/30/99. Statutory Authority: RCW 43.20B.020. WSR 92-02-018 (Order 224), § 246-650-990, filed 12/23/91, effective 1/23/92. Statutory Authority: RCW 43.20.050. WSR 91-02-051 (Order 124B), recodified as § 246-650-990, filed 12/27/90, effective 1/31/91. Statutory Authority: RCW 43.20.050 and 70.83.050. WSR 87-11-040 (Order 303), § 248-103-030, filed 5/18/87.]

WAC 246-650-991 Specialty clinic support fee. The department has the authority under RCW 70.83.023 to collect an eight dollar and forty cent fee for each infant screened to fund specialty clinics that provide treatment services for congenital disorders defined by the state board of health under RCW 70.83.020, and may also be used for purposes of funding activities in subsection (2) of this section. This fee is to be collected in conjunction with the screening charge described in WAC 246-650-990.

[Statutory Authority: RCW 70.83.050, 70.83.090 and RCW 70.83.020. WSR 19-20-025, § 246-650-991, filed 9/23/19, effective 10/24/19. Statutory Authority: RCW 70.83.040. WSR 05-20-108, § 246-650-991, filed 10/5/05, effective 11/5/05; WSR 99-20-036, § 246-650-991, filed 9/29/99, effective 10/30/99.]