

EP14 – ACCOUNTABILITY, COMPETENCE AND AUTONOMY

CLINICAL NURSES HAVING THE AUTONOMY TO TITRATE HEPARIN INFUSION

Provide one example, with supporting evidence, of clinical nurses having the autonomy to make nursing care decisions within the full scope of their nursing practice.

The New York State Nurse Practice Act grants registered nurses (RNs) the authority and autonomy to make nursing care decisions within the full scope of their nursing practice in order to provide the highest quality, safest, and most compassionate care and service to patients. Additionally, the New York State Nurse Practice Act provides for an RN to diagnose and treat “human responses to actual or potential health problems through such services as case-finding, health teaching, health counseling, and provision of care supportive to or restorative of life and well-being.” [EP14.1—New York State Nursing Laws Rules and Regulations, p.1.](#)

Establishing the Adult Heparin Titratable Infusion Protocol

In August 2023, NewYork-Presbyterian’s (NYP) Unfractionated Heparin Intravenous (IV) Dosing and Monitoring Policy for Adult Inpatients was revised to reflect the new adult heparin titratable infusion protocol. According to the revised policy, there are two types of heparin infusions available for ordering – titratable heparin and heparin titratable by provider. Titratable heparin orders are heparin infusion orders in which the clinical nurse manages the heparin titration and releases laboratory orders per protocol. Heparin titratable by provider orders involve providers managing the heparin titration orders and laboratory results. The policy further defines nursing responsibilities pertaining to the following:

- Independent dual signature
- Dry dosing weight
- aPTT monitoring as per order
- Interruptions in therapy

- Documentation

EP14.2—Unfractionated Heparin Intravenous (IV) Dosing and Monitoring Policy For Adult Inpatients

On August 4, 2023, Lori Perlstein, DNP, RN, NPD-BC, NEA-BC, Senior Director, Nursing Professional Development, notified all NYP nurses of the related e-learning module deployed to the electronic learning system accounts. The purpose of the module was to review the new nurse-driven adult heparin titratable infusion protocol. The module entitled, *Adult Heparin Titration Protocol for Inpatient Nurses*, was assigned to all inpatient adult nurses, adult procedural area nurses, and adult emergency department nurses. Nurses accessed the module via the “My Learning” page in Workday. The due date for completion of the module was August 31, 2023. After the due date, 91% of clinical nurses in NYP/Columbia completed the module and were deemed competent to apply the new protocol. [EP14.3—Heparin Titration Protocol E-Learning Module](#)

Starting September 12, 2023, clinical nurses at NewYork-Presbyterian/Columbia University Irving Medical Center (NYP/Columbia), in accordance with the New York State Nurse Practice Act, assumed autonomy to adjust the heparin dose and rate based on defined criteria in the order panel protocol. Haofei (Faye) Wang, DNP, RN, NEA-BC, Senior Director, Professional Nursing Practice, emailed a practice alert to all nurses detailing the new adult heparin titratable infusion protocol, including the following key practice changes:

- New order panels have been created in Epic for titration of heparin. The new heparin titratable infusion protocol is weight-based, dosed as units/kg/hr by default, includes aPTT initial and ongoing specimen collection, and has criteria for adjustment of heparin dosing based on the aPTT results.
- Exception: Heparin infusions for CRRT, IR thrombolysis, and catheter-directed thrombolysis (i.e., Impella) will continue to be dosed as units/hr.
- The new heparin titratable infusion can be adjusted by nurses based on aPTT values and specific indications and criteria in the updated hospital policy/protocol.
- Dual signatures on heparin infusion are required for all clinical areas except intra-operative and intra-catheter procedures.

EP14.4— Adult Heparin Titratable Infusion Protocol Practice Alert

Nurse Autonomy in Practice

The patient is a 75-year-old female with heart failure who was admitted to the Surgical Stepdown (5GN-605427) [5GN] Unit on January 5, 2024. The patient developed new atrial flutter with rapid ventricular response after administration of anesthesia prior to an outpatient biopsy of a right upper lobe mass suspicious for primary lung cancer and a left lower lobe nodule. Based on the new adult heparin titratable infusion protocol, the patient met the criteria for the titratable heparin infusion indicated for atrial flutter. On January 20, 2024, the patient was started on the Moderate Intensity Titration Protocol. David Martinez, BSN, RN, and Shirley Basa, BSAN, RN, MEDSURG-BC, clinical nurses, 5GN, performed independent double checks and dual signatures at the initiation of heparin infusion at 9:25 am. The initial infusion dose was 12 units/kg/hr. The patient's aPTT was 81.8 seconds at 3:55 pm. At 7:38 pm, Mr. Martinez and Lucille Enriquez, BSN, RN, clinical nurse, 5GN, performed independent double checks and dual signatures at handoff. Based on the Moderate Intensity Titration Protocol, no dose change was needed since the patient's aPTT was within therapeutic range. At 11:34 pm, the patient's aPTT was 46 seconds. At 11:49 pm, Ms. Enriquez and Jennifer Carrera, BSN, RN, clinical nurse, 5GN, exercised nursing autonomy to adjust the heparin dose by 2 units/kg/hr, from the initial dose of 12 units/kg/hr to 14 units/kg/hr based on Moderate Intensity Titration Protocol. [EP14.5—Titratable Heparin Protocol Documentation](#)



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Office of the Professions

Education Law

Article 139, Nursing

Effective June 18, 2010

[§6900. Introduction.](#) | [§6901. Definitions.](#) | [§6902. Definition of practice of nursing.](#) | [§6903. Practice of nursing and use of title "registered professional nurse" or "licensed practical nurse".](#) | [§6904. State board for nursing.](#) | [§6905. Requirements for a license as a registered professional nurse.](#) | [§6906. Requirements for a license as a licensed practical nurse.](#) | [§6907. Limited permits.](#) | [§ 6908. Exempt persons.](#) | [§6909. Special provision.](#) | [§6910. Certificates for nurse practitioner practice.](#) | [§6911. Certification as a clinical nurse specialist \(CNS\).](#)

§6900. Introduction.

This article applies to the profession of nursing. The general provisions for all professions contained in article one hundred thirty of this title apply to this article.

§6901. Definitions.

As used in section sixty-nine hundred two:

1. "Diagnosing" in the context of nursing practice means that identification of and discrimination between physical and psychosocial signs and symptoms essential to effective execution and management of the nursing regimen. Such diagnostic privilege is distinct from a medical diagnosis.
2. "Treating" means selection and performance of those therapeutic measures essential to the effective execution and management of the nursing regimen, and execution of any prescribed medical regimen.
3. "Human Responses" means those signs, symptoms and processes which denote the individual's interaction with an actual or potential health problem.

§6902. Definition of practice of nursing.

1. The practice of the profession of nursing as a registered professional nurse is defined as diagnosing and treating human responses to actual or potential health problems through such services as casefinding, health teaching, health counseling, and provision of care supportive to or restorative of life and well-being, and executing medical regimens prescribed by a licensed physician, dentist or other licensed health care provider legally authorized under this title and in accordance with the commissioner's regulations. A nursing regimen shall be consistent with and shall not vary any existing medical regimen.
2. The practice of nursing as a licensed practical nurse is defined as performing tasks and responsibilities within the framework of casefinding, health teaching, health counseling, and provision of supportive and restorative care under the direction of a registered professional nurse or licensed physician, dentist or other licensed health care provider legally authorized under this title and in accordance with the commissioner's regulations.
3. *
 - a.
 - i. The practice of registered professional nursing by a nurse practitioner, certified under section six thousand nine hundred ten of this article, may include the diagnosis of illness and physical conditions and the performance of therapeutic and corrective measures within a specialty area of practice, in collaboration with a licensed physician qualified to collaborate in the specialty involved, provided such services are performed in accordance with a written practice agreement and written practice protocols except as permitted by paragraph (b) of this subdivision. The written practice agreement shall include explicit provisions for the resolution of any disagreement between the collaborating physician and the nurse practitioner regarding a matter of diagnosis or treatment that is within the scope of practice of both. To the extent the practice agreement does not so provide, then the collaborating physician's diagnosis or treatment shall prevail.
 - ii. Prescriptions for drugs, devices and immunizing agents may be issued by a nurse practitioner, under this paragraph and section six thousand nine hundred ten of this

article, in accordance with the practice agreement and practice protocols except as permitted by paragraph (b) of this subdivision. The nurse practitioner shall obtain a certificate from the department upon successfully completing a program including an appropriate pharmacology component, or its equivalent, as established by the commissioner's regulations, prior to prescribing under this paragraph. The certificate issued under section six thousand nine hundred ten of this article shall state whether the nurse practitioner has successfully completed such a program or equivalent and is authorized to prescribe under this paragraph.

- iii. Each practice agreement shall provide for patient records review by the collaborating physician in a timely fashion but in no event less often than every three months. The names of the nurse practitioner and the collaborating physician shall be clearly posted in the practice setting of the nurse practitioner.
 - iv. The practice protocol shall reflect current accepted medical and nursing practice. The protocols shall be filed with the department within ninety days of the commencement of the practice and may be updated periodically. The commissioner shall make regulations establishing the procedure for the review of protocols and the disposition of any issues arising from such review.
 - v. No physician shall enter into practice agreements with more than four nurse practitioners who are not located on the same physical premises as the collaborating physician.
- b. Notwithstanding subparagraph (i) of paragraph (a) of this subdivision, a nurse practitioner, certified under section sixty-nine hundred ten of this article and practicing for more than three thousand six hundred hours may comply with this paragraph in lieu of complying with the requirements of paragraph (a) of this subdivision relating to collaboration with a physician, a written practice agreement and written practice protocols. A nurse practitioner complying with this paragraph shall have collaborative relationships with one or more licensed physicians qualified to collaborate in the specialty involved or a hospital, licensed under article twenty-eight of the public health law, that provides services through licensed physicians qualified to collaborate in the specialty involved and having privileges at such institution. As evidence that the nurse practitioner maintains collaborative relationships, the nurse practitioner shall complete and maintain a form, created by the department, to which the nurse practitioner shall attest, that describes such collaborative relationships. For purposes of this paragraph, "collaborative relationships" shall mean that the nurse practitioner shall communicate, whether in person, by telephone or through written (including electronic) means, with a licensed physician qualified to collaborate in the specialty involved or, in the case of a hospital, communicate with a licensed physician qualified to collaborate in the specialty involved and having privileges at such hospital, for the purposes of exchanging information, as needed, in order to provide comprehensive patient care and to make referrals as necessary. Such form shall also reflect the nurse practitioner's acknowledgement that if reasonable efforts to resolve any dispute that may arise with the collaborating physician or, in the case of a collaboration with a hospital, with a licensed physician qualified to collaborate in the specialty involved and having privileges at such hospital, about a patient's care are not successful, the recommendation of the physician shall prevail. Such form shall be updated as needed and may be subject to review by the department. The nurse practitioner shall maintain documentation that supports such collaborative relationships. Failure to comply with the requirements found in this paragraph by a nurse practitioner who is not complying with such provisions of paragraph (a) of this subdivision, shall be subject to professional misconduct provisions as set forth in article one hundred thirty of this title.
- c. Nothing in this subdivision shall be deemed to limit or diminish the practice of the profession of nursing as a registered professional nurse under this article or any other law, rule, regulation or certification, nor to deny any registered professional nurse the right to do any act or engage in any practice authorized by this article or any other law, rule, regulation or certification.
- d. The provisions of this subdivision shall not apply to any activity authorized, pursuant to statute, rule or regulation, to be performed by a registered professional nurse in a hospital as defined in article twenty-eight of the public health law.
- e.
- i. In conjunction with and as a condition of each triennial registration, the department shall collect and a nurse practitioner shall provide such information and documentation required by the department, in consultation with the department of health, as necessary to enable the department of health to evaluate access to needed services in this state, including but not limited to the location and type of setting wherein the nurse practitioner practices; if the nurse practitioner has practiced for fewer than three thousand six hundred hours and is practicing pursuant to a written practice agreement with a physician; if the nurse practitioner practices pursuant to collaborative relationships with a physician or hospital; and other information the department, in consultation with the department of health, deems relevant. The department of health, in consultation with the

department, will make such data available in aggregate, de-identified form on a publicly accessible website.

- ii. The commissioner, in consultation with the commissioner of health, shall issue a report on the implementation of the provisions of this section, along with information that includes, but is not limited to: the number of nurse practitioners practicing for fewer than three thousand six hundred hours that practice pursuant to a written practice agreement with a physician; the number of nurse practitioners that practice pursuant to collaborative relationships with physicians or with hospitals; and other information the department deems relevant, including but not limited to, any recommendations for the continuation of or amendments to the provisions of this section relating to written practice agreements or collaborative relationships. The commissioner shall submit this report to the governor, the speaker of the assembly, the temporary president of the senate, and the chairs of the assembly and senate higher education committees by September first, two thousand eighteen.

*NB Effective Until June 30, 2021

3. *

- a. The practice of registered professional nursing by a nurse practitioner, certified under section six thousand nine hundred ten of this article, may include the diagnosis of illness and physical conditions and the performance of therapeutic and corrective measures within a specialty area of practice, in collaboration with a licensed physician qualified to collaborate in the specialty involved, provided such services are performed in accordance with a written practice agreement and written practice protocols. The written practice agreement shall include explicit provisions for the resolution of any disagreement between the collaborating physician and the nurse practitioner regarding a matter of diagnosis or treatment that is within the scope of practice of both. To the extent the practice agreement does not so provide, then the collaborating physician's diagnosis or treatment shall prevail.
- b. Prescriptions for drugs, devices and immunizing agents may be issued by a nurse practitioner, under this subdivision and section six thousand nine hundred ten of this article, in accordance with the practice agreement and practice protocols. The nurse practitioner shall obtain a certificate from the department upon successfully completing a program including an appropriate pharmacology component, or its equivalent, as established by the commissioner's regulations, prior to prescribing under this subdivision. The certificate issued under section six thousand nine hundred ten of this article shall state whether the nurse practitioner has successfully completed such a program or equivalent and is authorized to prescribe under this subdivision.
- c. Each practice agreement shall provide for patient records review by the collaborating physician in a timely fashion but in no event less often than every three months. The names of the nurse practitioner and the collaborating physician shall be clearly posted in the practice setting of the nurse practitioner.
- d. The practice protocol shall reflect current accepted medical and nursing practice. The protocols shall be filed with the department within ninety days of the commencement of the practice and may be updated periodically. The commissioner shall make regulations establishing the procedure for the review of protocols and the disposition of any issues arising from such review.
- e. No physician shall enter into practice agreements with more than four nurse practitioners who are not located on the same physical premises as the collaborating physician.
- f. Nothing in this subdivision shall be deemed to limit or diminish the practice of the profession of nursing as a registered professional nurse under this article or any other law, rule, regulation or certification, nor to deny any registered professional nurse the right to do any act or engage in any practice authorized by this article or any other law, rule, regulation or certification.
- g. The provisions of this subdivision shall not apply to any activity authorized, pursuant to statute, rule or regulation, to be performed by a registered professional nurse in a hospital as defined in article twenty-eight of the public health law.

*NB Effective June 30, 2021

§6903. Practice of nursing and use of title "registered professional nurse" or "licensed practical nurse".

Only a person licensed or otherwise authorized under this article shall practice nursing and only a person licensed under section sixty-nine hundred four shall use the title "registered professional nurse" and only a person licensed under section sixty-nine hundred five of this article shall use the title "licensed practical nurse". No person shall use the title "nurse" or any other title or abbreviation that would represent to the public that the person is authorized to practice nursing unless the person is licensed or otherwise authorized under this article.

§6904. State board for nursing.

A state board for nursing shall be appointed by the board of regents on recommendation of the commissioner for the purpose of assisting the board of regents and the department on matters of professional licensing and professional conduct in accordance with section sixty-five hundred eight of this title. The board shall be composed of not less than fifteen members, eleven of whom shall be registered professional nurses and four of whom shall be licensed practical nurses all licensed and practicing in this state for at least five years. An executive secretary to the board shall be appointed by the board of regents on recommendation of the commissioner and shall be a registered professional nurse registered in this state.

§6905. Requirements for a license as a registered professional nurse.

To qualify for a license as a registered professional nurse, an applicant shall fulfill the following requirements:

1. Application: file an application with the department;
2. *Education: have received an education, and a diploma or degree in professional nursing, in accordance with the commissioner's regulations;
* NB Effective until June 18, 2019
2. *Education: have received an education, and a diploma or degree in professional nursing, in accordance with the commissioner's regulations, and in order to continue to maintain registration as a registered professional nurse in New York state, have attained a baccalaureate degree or higher in nursing within ten years of initial licensure in accordance with the commissioner's regulations. The department, in its discretion, may issue a conditional registration to a licensee who fails to complete the baccalaureate degree but who agrees to meet the additional requirement within one year. The fee for such a conditional registration shall be the same as, and in addition to, the fee for the triennial registration. The duration of such conditional registration shall be for one year and may be extended, with the payment of a fee, for no more than one additional year, unless the applicant can show good cause for non-compliance acceptable to the department. Any licensee who is notified of the denial of a registration for failure to complete the additional educational requirements and who practices as a registered professional nurse without such registration may be subject to disciplinary proceedings pursuant to section sixty-five hundred ten of this title;
* NB Effective June 18, 2019
3. Experience: meet no requirement as to experience;
4. Examination: pass an examination satisfactory to the board and in accordance with the commissioner's regulations;
5. Age: be at least eighteen years of age;
6. Citizenship: meet no requirement as to United States citizenship;
7. Character: be of good moral character as determined by the department; and
8. Fees: pay a fee of one hundred fifteen dollars to the department for admission to a department conducted examination and for an initial license, a fee of forty-five dollars for each reexamination, a fee of seventy dollars for an initial license for persons not requiring admission to a department conducted examination, and a fee of fifty dollars for each triennial registration period.

§6906. Requirements for a license as a licensed practical nurse.

To qualify for a license as a licensed practical nurse, an applicant shall fulfill these requirements:

1. Application: file an application with the department;
2. Education: have received an education including completion of high school or its equivalent, and have completed a program in practical nursing, in accordance with the commissioner's regulations, or completion of equivalent study satisfactory to the department in a program conducted by the armed forces of the United States or in an approved program in professional nursing;
3. Experience: meet no requirement as to experience;
4. Examination: pass an examination satisfactory to the board and in accordance with the commissioner's regulations, provided, however, that the educational requirements set forth in subdivision two of this section are met prior to admission for the licensing examination;
5. Age: be at least seventeen years of age;
6. Citizenship: meet no requirements as to United States citizenship;
7. Character: be of good moral character as determined by the department; and
8. Fees: pay a fee of one hundred fifteen dollars to the department for admission to a department conducted examination and for an initial license, a fee of forty-five dollars for each reexamination, a fee of seventy dollars for an initial license for persons not requiring admission to a department conducted examination, and a fee of fifty dollars for each triennial registration period.

§6907. Limited permits.

1. A permit to practice as a registered professional nurse or a permit to practice as a licensed practical nurse may be issued by the department upon the filing of an application for a license as a registered professional nurse or as a licensed practical nurse and submission of such other information as the department may require to
 - i. graduates of schools of nursing registered by the department,
 - ii. graduates of schools of nursing approved in another state, province, or country or
 - iii. applicants for a license in practical nursing whose preparation is determined by the department to be the equivalent of that required in this state.
2. Such limited permit shall expire one year from the date of issuance or upon notice to the applicant by the department that the application for license has been denied, or ten days after notification to the applicant of failure on the professional licensing examination, whichever shall first occur. Notwithstanding the foregoing provisions of this subdivision, if the applicant is waiting the result of a licensing examination at the time such limited permit expires, such permit shall continue to be valid until ten days after notification to the applicant of the results of such examination.
3. A limited permit shall entitle the holder to practice nursing only under the supervision of a nurse currently registered in this state and with the endorsement of the employing agency.
4. Fees. The fee for each limited permit shall be thirty-five dollars.
5. Graduates of schools of nursing registered by the department may be employed to practice nursing under supervision of a professional nurse currently registered in this state and with the endorsement of the employing agency for ninety days immediately following graduation from a program in nursing and pending receipt of a limited permit for which an application has been filed as provided in this section.

§6908. Exempt persons.

1. This article shall not be construed:
 - a. As prohibiting
 - i. the domestic care of the sick, disabled or injured by any family member, household member or friend, or person employed primarily in a domestic capacity who does not hold himself or herself out, or accept employment as a person licensed to practice nursing under the provision of this article; provided that if such person is remunerated, the person does not hold himself or herself out as one who accepts employment for performing such care; or the administration of medications or treatment by child day care providers or employees or caregivers of child day care programs where such providers, employees or caregivers are acting under the direction and authority of a parent of a child, legal guardian, legal custodian, or an adult in whose care a child has been entrusted and who has been authorized by the parent to consent to any health care for the child and in compliance with the regulations of the office of children and family services pertaining to the administration of medications and treatment; or
 - ii. any person from the domestic administration of family remedies; or
 - iii. the providing of care by a person acting in the place of a person exempt under clause (i) of this paragraph, but who does hold himself or herself out as one who accepts employment for performing such care, where nursing services are under the instruction of a licensed nurse, or under the instruction of a patient or family or household member determined by a registered professional nurse to be self-directing and capable of providing such instruction, and services are provided under section three hundred sixty-five-f of the social services law; or
 - iv. the furnishing of nursing assistance in case of an emergency; or
 - v. tasks provided by a direct support staff in programs certified or approved by the office for people with developmental disabilities, when performed under the supervision of a registered professional nurse and pursuant to a memorandum of understanding between the office for people with developmental disabilities and the department, in accordance with and pursuant to an authorized practitioner's ordered care, provided that:
 1. a registered professional nurse determines, in his or her professional judgment, which tasks are to be performed based upon the complexity of the tasks, the skill and experience of the direct support staff, and the health status of the individual being cared for;
 2. only a direct support staff who has completed training as required by the commissioner of the office for people with developmental disabilities may perform tasks pursuant to this subparagraph;
 3. appropriate protocols shall be established to ensure safe administration of medications;
 4. a direct support staff shall not assess the medication needs of an individual;
 5. adequate nursing supervision is provided, including training and periodic inspection of performance of the tasks. The amount and type of nursing supervision shall be determined by the registered professional nurse responsible for supervising such

- task based upon the complexity of the tasks, the skill and experience of the direct support staff, and the health status of the individual being cared for;
6. a direct support staff shall not be authorized to perform any tasks or activities pursuant to this subparagraph that are outside the scope of practice of a licensed practical nurse;
 7. a direct support staff shall not represent himself or herself, or accept employment, as a person licensed to practice nursing under the provisions of this article;
 8. direct support staff providing medication administration, tube feeding, or diabetic care shall be separately certified, and shall be recertified on an annual basis;
 9. the registered professional nurse shall ensure that there is a consumer specific medication sheet for each medication that is administered; and
 10. appropriate staffing ratios shall be determined by the office for people with developmental disabilities and the department to ensure adequate nursing supervision. No direct support staff shall perform tasks under this subparagraph until the office for people with developmental disabilities and the department have entered into a memorandum of understanding to effectuate the provisions of this subparagraph. The office for people with developmental disabilities shall complete a criminal background check pursuant to section 16.33 of the mental hygiene law and an agency background check pursuant to section 16.34 of the mental hygiene law on the direct support staff prior to the commencement of any provision of service provided under this subparagraph if such direct support staff is a new hire. Individuals providing supervision or direct support tasks pursuant to this subparagraph shall have protection pursuant to sections seven hundred forty and seven hundred forty-one of the labor law, where applicable;
- b. As including services given by attendants in institutions under the jurisdiction of or subject to the visitation of the state department of mental hygiene if adequate medical and nursing supervision is provided;
 - c. As prohibiting such performance of nursing service by students enrolled in registered schools or programs as may be incidental to their course of study;
 - d. As prohibiting or preventing the practice of nursing in this state by any legally qualified nurse or practical nurse of another state, province, or country whose engagement requires him or her to accompany and care for a patient temporarily residing in this state during the period of such engagement provided such person does not represent or hold himself or herself out as a nurse or practical nurse registered to practice in this state;
 - e. As prohibiting or preventing the practice of nursing in this state during an emergency or disaster by any legally qualified nurse or practical nurse of another state, province, or country who may be recruited by the American National Red Cross or pursuant to authority vested in the state civil defense commission for such emergency or disaster service, provided such person does not represent or hold himself or herself out as a nurse or practical nurse registered to practice in this state;
 - f. As prohibiting or preventing the practice of nursing in this state, in obedience to the requirements of the laws of the United States, by any commissioned nurse officer in the armed forces of the United States or by any nurse employed in the United States veterans administration or United States public health service while engaged in the performance of the actual duties prescribed for him or her under the United States statutes, provided such person does not represent or hold himself or herself out as a nurse registered to practice in this state; or
 - g. As prohibiting the care of the sick when done in connection with the practice of the religious tenets of any church.
 - h. As prohibiting the provision of psychotherapy as defined in subdivision two of section eighty-four hundred one of this title to the extent permissible within the scope of practice of nursing as defined in this title, by any not-for-profit corporation or education corporation providing services within the state and operating under a waiver pursuant to section sixty-five hundred three-a of this title, provided that such entities offering such psychotherapy services shall only provide such services through an individual appropriately licensed or otherwise authorized to provide such services or a professional entity authorized by law to provide such services.
2. *This article shall not be construed as prohibiting advanced tasks provided by an advanced home health aide in accordance with regulations developed by the commissioner, in consultation with the commissioner of health. At a minimum, such regulations shall:
 - a. specify the advanced tasks that may be performed by advanced home health aides pursuant to this subdivision. Such tasks shall include the administration of medications which are routine and prefilled or otherwise packaged in a manner that promotes relative ease of administration, provided that administration of medications by injection, sterile procedures, and central line maintenance shall be prohibited. Provided, however, such prohibition shall not apply to injections of insulin or other injections for diabetes care, to injections of low molecular weight heparin, and

- to pre-filled auto-injections of naloxone and epinephrine for emergency purposes, and provided, further, that entities employing advanced home health aides pursuant to this subdivision shall establish a systematic approach to address drug diversion;
- b. provide that advanced tasks performed by advanced home health aides may be performed only under the direct supervision of a registered professional nurse licensed in New York state, as set forth in this subdivision and subdivision eight of section sixty-nine hundred nine of this article, where such nurse is employed by a home care services agency licensed or certified pursuant to article thirty-six of the public health law, a hospice program certified pursuant to article forty of the public health law, or an enhanced assisted living residence licensed pursuant to article seven of the social services law and certified pursuant to article forty-six-B of the public health law. Such nursing supervision shall:
- i. include training and periodic assessment of the performance of advanced tasks;
 - ii. be determined by the registered professional nurse responsible for supervising such advanced tasks based upon the complexity of such advanced tasks, the skill and experience of the advanced home health aide, and the health status of the individual for whom such advanced tasks are being performed;
 - iii. include a comprehensive initial and thereafter regular and ongoing assessment of the individual's needs;
 - iv. include as a requirement that the supervising registered professional nurse shall visit individuals receiving services for the purpose of supervising the services provided by advanced home health aides no less than once every two weeks and include as a requirement that a registered professional nurse shall be available by telephone to the advanced home health aide twenty-four hours a day, seven days a week, provided that a registered professional nurse shall be available to visit an individual receiving services as necessary to protect the health and safety of such individual; and
 - v. as shall be specified by the commissioner, be provided in a manner that takes into account individual care needs, case mix complexity and geographic considerations and provide that the number of individuals served by a supervising registered professional nurse is reasonable and prudent.
- c. establish a process by which a registered professional nurse may assign advanced tasks to an advanced home health aide. Such process shall include, but not be limited to:
- i. allowing assignment of advanced tasks to an advanced home health aide only where such advanced home health aide has demonstrated to the satisfaction of the supervising registered professional nurse competency in every advanced task that such advanced home health aide is authorized to perform, a willingness to perform such advanced tasks, and the ability to effectively and efficiently communicate with the individual receiving services and understand such individual's needs;
 - ii. prohibiting assignment of advanced tasks to an advanced home health aide if the individual receiving services declines to be served by an advanced home health aide;
 - iii. authorizing the supervising registered professional nurse to revoke any assigned advanced task from an advanced home health aide for any reason; and
 - iv. authorizing multiple registered professional nurses to jointly agree to assign advanced tasks to an advanced home health aide, provided further that only one registered professional nurse shall be required to determine if the advanced home health aide has demonstrated competency in the advanced task to be performed;
- d. provide that advanced tasks may be performed only in accordance with and pursuant to an authorized health practitioner's ordered care;
- e. provide that only a certified home health aide may perform advanced tasks as an advanced home health aide when such aide has:
- i. at least one year of experience providing either home health or personal care services, or a combination of the same;
 - ii. completed the requisite training and demonstrated competencies of an advanced home health aide as determined by the commissioner in consultation with the commissioner of health;
 - iii. successfully completed competency examinations satisfactory to the commissioner in consultation with the commissioner of health; and
 - iv. meets other appropriate qualifications as determined by the commissioner in consultation with the commissioner of health;
- f. provide that only an individual who is listed in the home care services registry maintained by the department of health pursuant to section thirty-six hundred thirteen of the public health law as having satisfied all applicable training requirements and having passed the applicable competency examinations and who meets other requirements as set forth in regulations issued by the commissioner of health pursuant to subdivision seventeen of section thirty-six hundred two of the public health law may perform advanced tasks pursuant to this subdivision and may hold himself or herself out as an advanced home health aide;

- g. establish minimum standards of training for the performance of advanced tasks by advanced home health aides, including didactic training, clinical training, and a supervised clinical practicum with standards set forth by the commissioner of health;
- h. provide that advanced home health aides shall receive case-specific training on the advanced tasks to be assigned by the supervising nurse, provided that additional training shall take place whenever additional advanced tasks are assigned;
- i. prohibit an advanced home health aide from holding himself or herself out, or accepting employment as, a person licensed to practice nursing under the provisions of this article;
- j. provide that an advanced home health aide is not required nor permitted to assess the medication or medical needs of an individual;
- k. provide that an advanced home health aide shall not be authorized to perform any advanced tasks or activities pursuant to this subdivision that are outside the scope of practice of a licensed practical nurse or any advanced tasks that have not been appropriately assigned by the supervising registered professional nurse;
- l. provide that an advanced home health aide shall document all advanced tasks provided to an individual, including medication administration to each individual through the use of a medication administration record; and
- m. provide that the supervising registered professional nurse shall retain the discretion to decide whether to assign advanced tasks to advanced home health aides under this program and shall not be subject to coercion, retaliation, or the threat of retaliation; in developing such regulations, the commissioner shall take into account the recommendations of a workgroup of stakeholders convened by the commissioner of health in consultation with the commissioner for the purpose of providing guidance on the foregoing.

* NB Effective May 28, 2018

* NB Repealed March 31, 2023

§6909. Special provision.

1. Notwithstanding any inconsistent provision of any general, special, or local law, any licensed registered professional nurse or licensed practical nurse who voluntarily and without the expectation of monetary compensation renders first aid or emergency treatment at the scene of an accident or other emergency, outside a hospital, doctor's office or any other place having proper and necessary medical equipment, to a person who is unconscious, ill or injured shall not be liable for damages for injuries alleged to have been sustained by such person or for damages for the death of such person alleged to have occurred by reason of an act or omission in the rendering of such first aid or emergency treatment unless it is established that such injuries were or such death was caused by gross negligence on the part of such registered professional nurse or licensed practical nurse. Nothing in this subdivision shall be deemed or construed to relieve a licensed registered professional nurse or licensed practical nurse from liability for damages for injuries or death caused by an act or omission on the part of such nurse while rendering professional services in the normal and ordinary course of her practice.
2. Nothing in this article shall be construed to confer the authority to practice medicine or dentistry.
3. An applicant for a license as a registered professional nurse or licensed practical nurse by endorsement of a license of another state, province or country whose application was filed with the department under the laws in effect prior to August thirty-first, nineteen hundred seventy-one shall be licensed only upon successful completion of the appropriate licensing examination unless satisfactory evidence of the completion of all educational requirements is submitted to the department prior to September one, nineteen hundred seventy-seven.
4. A certified nurse practitioner may prescribe and order a non-patient specific regimen to a registered professional nurse, pursuant to regulations promulgated by the commissioner, consistent with subdivision three of section six thousand nine hundred two of this article, and consistent with the public health law, for:
 - a. administering immunizations.
 - b. the emergency treatment of anaphylaxis.
 - c. administering purified protein derivative (PPD) tests or other tests to detect or screen for tuberculosis infections.
 - d. administering tests to determine the presence of the human immunodeficiency virus.
 - e. administering tests to determine the presence of the hepatitis C virus.
 - f. the urgent or emergency treatment of opioid related overdose or suspected opioid related overdose.
 - g. screening of persons at increased risk for syphilis, gonorrhea and chlamydia.
5. A registered professional nurse may execute a non-patient specific regimen prescribed or ordered by a licensed physician or certified nurse practitioner, pursuant to regulations promulgated by the commissioner.
6. A registered professional nurse defined under subdivision one of section sixty-nine hundred two of this article may use accepted classifications of signs, symptoms, dysfunctions and disorders, including, but

not limited to, classifications used in the practice setting for the purpose of providing mental health services.

7. *A certified nurse practitioner may prescribe and order a patient specific order or non-patient specific regimen to a licensed pharmacist, pursuant to regulations promulgated by the commissioner, and consistent with the public health law, for administering immunizations to prevent influenza, pneumococcal, acute herpes zoster, meningococcal, tetanus, diphtheria or pertussis disease and medications required for emergency treatment of anaphylaxis. Nothing in this subdivision shall authorize unlicensed persons to administer immunizations, vaccines or other drugs.

* NB Effective until July 1, 2019

7. *A certified nurse practitioner may prescribe and order a non-patient specific regimen to a licensed pharmacist, pursuant to regulations promulgated by the commissioner, and consistent with the public health law, for administering immunizations. Nothing in this subdivision shall authorize unlicensed persons to administer immunizations, vaccines or other drugs.

* NB Effective and Repealed July 1, 2019

8. *A registered professional nurse, while working for a home care services agency licensed or certified pursuant to article thirty-six of the public health law, a hospice program certified pursuant to article forty of the public health law, or an enhanced assisted living residence licensed pursuant to article seven of the social services law and certified pursuant to article forty-six-B of the public health law may, in accordance with this subdivision, assign advanced home health aides to perform advanced tasks for individuals pursuant to the provisions of subdivision two of section sixty-nine hundred eight of this article and supervise advanced home health aides who perform assigned advanced tasks.

- a. Prior to assigning or modifying an assignment to perform an advanced task, the registered professional nurse shall:
- i. complete a nursing assessment to ascertain the client's current health status and care needs; and
 - ii. provide to the advanced home health aide written, individual-specific instructions for performing the advanced task and criteria for identifying, reporting and responding to problems or complications.
- b. The registered professional nurse shall not assign an advanced task unless:
- i. the advanced task to be assigned is consistent with an authorized health practitioner's ordered care;
 - ii. the registered professional nurse provides case specific training to the advanced home health aide and personally verifies that the advanced home health aide can safely and competently perform the advanced task;
 - iii. the registered professional nurse determines that the advanced home health aide is willing to perform such advanced task; and
 - iv. the registered professional nurse determines that the advanced home health aide is able to effectively and efficiently communicate with the individual receiving services and understand such individual's needs.
- c. The supervising registered professional nurse shall:
- i. visit individuals receiving services for the purpose of supervising the services provided by advanced home health aides no less than once every two weeks; and
 - ii. conduct regular and ongoing assessment of the individual's needs.

* NB Repealed March 31, 2023

* NB There are 2 sb 8's

8. *A certified nurse practitioner may prescribe and order a patient specific order or non-patient specific order to a licensed pharmacist, pursuant to regulations promulgated by the commissioner in consultation with the commissioner of health, and consistent with the public health law, for dispensing up to a seven day starter pack of HIV post-exposure prophylaxis for the purpose of preventing human immunodeficiency virus infection following a potential human immunodeficiency virus exposure.

* NB There are 2 sb 8's

§6910. Certificates for nurse practitioner practice.

1. For issuance of a certificate to practice as a nurse practitioner under subdivision three of section six thousand nine hundred two of this article, the applicant shall fulfill the following requirements:
 - a. Application: file an application with the department;
 - b. License: be licensed as a registered professional nurse in the state;
 - c. Education:
 - i. have satisfactorily completed educational preparation for provision of these services in a program registered by the department or in a program determined by the department to be the equivalent; or

- ii. submit evidence of current certification by a national certifying body, recognized by the department; or
 - iii. meet such alternative criteria as established by the commissioner's regulations;
 - d. Fees: pay a fee to the department of fifty dollars for each initial certificate authorizing nurse practitioner practice in a specialty area and a triennial registration fee of thirty dollars. Registration under this section shall be coterminous with the nurse practitioner's registration as a professional nurse.
 2. Only a person certified under this section shall use the title "nurse practitioner".
 3. The provisions of this section shall not apply to any act or practice authorized by any other law, rule, regulation or certification.
 4. The provisions of this section shall not apply to any activity authorized, pursuant to statute, rule or regulation, to be performed by a registered professional nurse in a hospital as defined in article twenty-eight of the public health law.
 5. The commissioner is authorized to promulgate regulations to implement the provisions of this section.
-

§6911. Certification as a clinical nurse specialist (CNS).

1. For issuance of a certificate to practice as a clinical nurse specialist under section six thousand nine hundred two of this article, the applicant shall fulfill the following requirements:
 - a. file an application with the department;
 - b. be licensed as a registered professional nurse in this state;
 - c.
 - i. have satisfactorily completed an educational program registered by the department including a master's or doctoral degree, or a post-master's certificate from a program acceptable to the department which prepares graduates to practice as CNSs and which is accredited by a national nursing accredited body acceptable to the department, and
 - ii. meets all other requirements established by the department to practice as a clinical nurse specialist, or (iii) have received educational preparation determined by the department to be the substantial equivalent of subparagraphs (i) and (ii) of this paragraph; and
 - d. pay a fee to the department of fifty dollars for each initial certificate authorizing clinical nurse specialist practice and a triennial registration fee of thirty dollars. Registration under this section shall be coterminous with the clinical nurse specialist's registration as a professional nurse.
2. Only a person certified under this section shall use the title "clinical nurse specialist" or the designation "CNS".

TITLE: UNFRACTIONATED HEPARIN INTRAVENOUS (IV) DOSING AND MONITORING POLICY FOR ADULT INPATIENTS

Unfractionated heparin (UFH) is an indirect anticoagulant and requires a plasma cofactor to express its anticoagulant activity. It potentiates the action of antithrombin and thereby inactivates thrombin (as well as activated coagulation factors IX, X, XI, XII, and plasmin) and prevents the conversion of fibrinogen to fibrin. UFH continuous infusion is indicated for the treatment of thromboembolic disorders.

POLICY:

The intent of this policy is to promote processes and procedures to be followed by prescribers and nurses to promote medication safety.

PURPOSE:

Describe the safe prescribing and monitoring of heparin in adult patients.

APPLICABILITY:

Healthcare providers, nurses, pharmacists

PROCEDURE:

1. Heparin infusion is not recommended in the following situations:
 - A. Active bleeding
 - B. Heparin Induced Thrombocytopenia (HIT)
 - C. History of HIT < 100 days or vaccine-induced thrombotic thrombocytopenia (VITT) or thrombotic thrombocytopenic syndrome (TTS)
 - D. Severe thrombocytopenia (< 30,000 platelets/mm³)
2. Two types of heparin infusions are available for ordering – “**titratable heparin**” and “**heparin titratable by provider**”. Titratable Heparin are heparin infusion orders where the nurse manages the heparin titration and releases lab orders per protocol. Heparin Titratable by Provider orders, where providers manage the heparin titration orders and labs.
3. For patients who do not meet the following criteria for the titratable heparin infusion, the provider must order the “heparin titratable by provider”.
 - A. Inclusion Criteria for Titratable Heparin Infusion Protocol**
 - a. Deep venous thromboembolism (DVT)
 - b. Pulmonary embolism (PE)
 - c. Acute coronary syndrome with/without ST segment elevation
 - d. Atrial fibrillation
 - e. Inherited/acquired hypercoagulable disorders in the context of DVT or PE diagnosis.
 - f. Unfractionated heparin (UFH) is preferred in patients for whom a diagnosis has not been established and/or an invasive procedure is anticipated.
 - B. Exclusion Criteria for Titratable Heparin Infusion Protocol**
 - a. Age < 18 years old (see pediatric protocol)
 - b. Suspected disseminated intravascular coagulopathy (DIC)
 - c. Antiphospholipid syndrome (APS)
 - d. Mechanical circulatory support (ex: ECMO support, VADs, Impella, IABP)

- e. Activated partial thromboplastin time (aPTT) goals outside of the therapeutic ranges indicated in the nomogram.
 - f. Patients requiring anti-Xa monitoring.
 - g. Patients requiring heparin infusion doses > 30 units/kg/hr
4. Precautions:
 - A. Non-steroidal anti-inflammatory medication, including COX-2 inhibitors, should be administered with extreme caution during heparin therapy.
 - B. Assess vital signs and signs/symptoms of bleeding.
 - C. In general, the concomitant use of heparin and thrombolytics should be avoided because of the risk of hemorrhage. However, scenarios may arise in which it is deemed clinically appropriate to use these medications concomitantly or in close temporal proximity. In these cases, the clinician should explain to the patient or his/her proxy why the benefits of combined therapy exceed the risks of possible hemorrhage.
 5. Prior to heparin infusion initiation
 - A. Obtain accurate patient dry (dosing) weight in kilograms.
 - B. Order STAT PT, aPTT, and CBC with platelet count prior to administration of heparin.
 - 1) If patient has previous resulted lab values within 24 hours of anticoagulant therapy initiation, the provider may consider using previous values. If the provider suspects a clinical change, the provider may order additional baseline labs.
 - C. If patient is a pre-operative patient, please follow the [Preoperative Testing Requirements policy and procedure manual](#) for laboratory work and blood tests.
 - D. Intravenous (IV) access
 - 1) Start a new IV site dedicated to heparin if necessary. If the patient has a central venous catheter, a port should be dedicated to heparin.
 6. Treatment initiation and dosing
 - A. Initiate heparin infusion based on the intensity of anticoagulation required.
 - B. Dry (dosing) weight should be used for optimal dosing.
 - C. For morbidly obese patients (BMI ≥ 40 kg/m²), use the highest weight listed for the initial dose and subsequent dose adjustments.
 - D. Heparin bolus
 - 1) Heparin bolus only for moderate and high intensity nomogram (Dose per Table 1 and Table 2) to be given IV push according to unit standards or bolus by bag.
 - 2) Heparin boluses should be omitted in patients with a ventricular assist device, unless approved by an attending (cardiology, surgery, critical care, or hematology)
 - E. INITIAL INFUSION using (premixed) 25,000 units in 250 mL of D5W or 0.45% NaCl as per Table 1, 2 or 3. Tables 4 and 5 are suggested dosing adjustments for providers to consider when placing non-titratable infusion orders monitored by anti-Xa levels.
 7. Monitoring
 - A. aPTT should be monitored **every 6 hours** after heparin **initiation** OR **any dosing change**.
 - B. Once 2 consecutive aPTT values are therapeutic, requiring no change in heparin infusion rate, monitor aPTT once daily until heparin infusion is discontinued.
 - C. **For patients with antiphospholipid syndrome (APS) or patients presenting with an elevated aPTT (≥ 10 sec above the upper limit of normal)**: Monitoring aPTT with unfractionated heparin in the presence of the APL antibodies is ineffective as the antibodies interfere with this *in vitro* test by causing prolongation of the aPTT. Therefore, monitoring with anti-factor Xa levels (Table 4 or 5) should be done or other anticoagulants such as low molecular weight heparin (LMWHs) should be considered.

- a. Contact hematology for assistance in the management of these patients.
- D. For pregnant women, consider checking anti-Xa levels (Table 4 or 5) instead of aPTT as factor VIII activity is increased in pregnancy and may shorten the aPTT.
- E. Anti-Xa monitoring cannot be used in patients who have recently taken oral anti-Xa inhibitors (apixaban, rivaroxaban, edoxaban, or betrixaban)
- F. Anti-Xa monitoring should only occur per provider order. Dose adjustments according to anti-Xa levels should only be performed by utilizing the “titratable heparin by provider” infusion order. If anti-Xa monitoring is warranted:
 - a. Check anti-Xa level (Heparin Activity level) 6 hours after starting infusion and after every dose adjustment (Use Tables 4 or 5 for suggested adjustments for providers to utilize)
 - b. Once 2 consecutive anti-Xa levels are therapeutic, requiring no change in heparin infusion rate, consider monitoring anti-Xa once daily until heparin infusion is discontinued.
- G. Therapeutic ranges:
 - 1) aPTT goals are campus specific and dependent on the heparin reagent used at each campus. Please refer to Tables 1-3 to identify campus specific goal aPTT.
 - 2) Anti-Xa goal is the same for all campuses and should be used only via the titratable heparin by provide heparin nomogram. The therapeutic anti-Xa range is 0.3-0.7 units/mL.

7. Heparin reversal:

- A. Protamine sulfate for life-threatening bleeding or emergency surgery
- B. Refer to the [Reversal Guidelines for Life-Threatening Bleeding Caused by Antithrombotics or Emergent Surgery](#)

8. Switching therapies:

- A. If switching **from an unfractionated heparin infusion** to another anticoagulant or vice versa, please refer to the [Anticoagulant Transition Guidance](#)

Nursing responsibilities:

A. Independent Dual Signature:

- 1) Independent double check/dual signature must be performed at the initiation of heparin infusion, giving initial and maintenance bolus, new bag change, rate/dose change, stopping the infusion, restarting the infusion, and hand-off communication.

B. Dry dosing weight:

- 1) Obtain patient’s weight, in kilograms, on admission and document that weight as the dry dosing weight on the Flowsheet.
- 2) If the patient’s admission weight is missing, obtain the patient’s current weight, in kilograms, as per order.
- 3) If the patient absolutely cannot be weighed, then the patient's weight may be estimated by the healthcare provider.

C. aPTT monitoring as per order

1) **Initial baseline aPTT collection and result:**

- a. Initial baseline aPTT should only be obtained BEFORE heparin initiation. If patient has previous resulted lab values within 24 hours of anticoagulant therapy initiation, the provider may consider using previous values. If the provider suspects a clinical change, the provider may order additional baseline labs.

- b. Unless the result of the initial baseline aPTT is suprathereapeutic, this initial baseline aPTT value serves as a reference. NO bolus or dose adjustment is needed based on the initial baseline aPTT. In the event that the initial baseline aPTT is suprathereapeutic, notify the provider to discuss the appropriate actions needed for the patient.
 - 2) **Subsequent aPTT collections and results:**
 - a. Subsequent aPTT collections must be performed 6 hours after heparin initiation and any changes in heparin dose, unless otherwise specified (see Section C on interruptions in therapy)
 - b. Adjust heparin dose per order nomogram (Tables 1-3)
 - c. Once 2 consecutive aPTT values are therapeutic, requiring no change in heparin infusion rate.
 - i. An aPTT should be checked at least daily in the AM until heparin is stopped.
 - d. If 2 consecutive aPTT values are outside of the therapeutic range, notify the provider to discuss the appropriate actions needed for the patient.
 - e. If the patient has additional laboratory orders to be drawn within a 2-hour time window of the aPTT, nursing may bundle the laboratory orders to reduce blood draws on a patient. If outside of a 2-hour time window, please discuss with the patient's healthcare provider.
 - 3) **Specimen Collection:**
 - a. [Refer to Nursing Clinical Standard PROC 728 Specimen Collection: Blood and Blood cultures on how to collect aPTT and anti-Xa.](#)
- D. Interruptions in therapy:
- 1) If heparin infusion was interrupted for < 1 hour, resume heparin at the prior dose and draw an aPTT 6 hours after resuming infusion.
 - 2) If heparin infusion was interrupted for 1- 8 hours: release an aPTT from the PRN aPTT order and restart infusion at the most recent maintenance dose. Based on the resulting aPTT, notify provider to discuss the consideration to re-bolus as per Table 1 or 2.
 - 3) If heparin infusion was interrupted for > 8 hours, restart the protocol (initial dosing per nomogram)
 - 4) If utilizing anti-Xa monitoring, discuss with the provider as to how to manage heparin dosing and monitoring.
- E. Documentation:
- 1) RN must follow the Administration Instructions in the heparin titratable order panel, and document correct MAR Actions according to **Table 6: MAR Action, BCMA and Dual Signature, and Brain Task/ED Alert Reminder.**

RESPONSIBILITY:

Enterprise Subcommittee on Anticoagulation

REFERENCES:

1. Parenteral Anticoagulants: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest 2012;141:e24S-e43S

2. Antithrombotic Therapy for VTE Disease: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest 2012;141:e419S-e494S
3. Antithrombotic Therapy for Atrial Fibrillation: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest 2012;141:e531S-e575S
4. Guervil DJ et al. Activated Partial Thromboplastin Time Versus Antifactor Xa Heparin Assay in Monitoring Unfractionated Heparin by Continuous Intravenous Infusion. The Annals of Pharmacotherapy. 2011;45(8):861-868.
5. Parenteral Anticoagulants: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest 2012;141:e24S-e43S
6. Rosenberg AF et al. The Use of Anti-Xa Assay to Monitor Intravenous Unfractionated Heparin Therapy. Journal of Pharmacy Practice. 2010;23(3):210-216.
7. Vandiver JW and Vondracek TG. Antifactor Xa Levels versus Activated Partial Thromboplastin Time for Monitoring Unfractionated Heparin. Pharmacotherapy 2012;32(6):546–558.
8. Rosborough TK. Monitoring Unfractionated Heparin Therapy with Antifactor Xa Activity Results in Fewer Monitoring Tests and Dosage Changes than Monitoring with the Activated Partial Thromboplastin Time. Pharmacotherapy 1999;19(6):760–766

POLICY DATES:

Issued: June 2020

Reviewed Date: November 2020, July 2021, November 2022, February 2023, August 2023

Revised Date: October 2023

Reviewed by Enterprise F&T Date: December 2022, March 2023, October 2023

Medical Board Approval Date: January 2021, September 2021, January 2023, April 2023, October 2023

Table 1: High Intensity Nomogram

HIGH INTENSITY NOMOGRAM Clinical Example: Acute VTE							
Initial Dose*							
Bolus Dose				Infusion Dose			
80 units/kg (max 9,999 units)				18 units/kg/hour			
aPTT Goal per Campus (sec) and Dose Adjustments							
Westchester	CUIMC and Allen	Weill Cornell and LMH	Queens	Brooklyn Methodist	HVH	Re-bolus Dose	Infusion Dose Changes
< 47	< 35	< 33	< 45.9	< 37	<39	80 units/kg (Max 9,999 units)	Increase by 4 units/kg/hour
47-59.9	35-50.9	33-49.4	45.9-64.2	37-65.4	39-54.9	40 units/kg (Max 5,000 units)	Increase by 2 units/kg/hour
60-95	51-83	49.5-80.9	64.3-101.2	65.5-97.1	55-85	At Goal, No Change	No Change
95.1-115.9	83.1-106.9	81-104.9	101.3-128.8	97.2-121	85.1-109	No Bolus	Decrease by 2 units/kg/hour
> 115.9	> 106.9	> 104.9	> 128.8	> 121	> 109	No Bolus	STOP infusion for 1 hour and decrease by 3 units/kg/hour

* Use dry weight

Note: aPTT should be monitored 6 hours after heparin initiation or any dosing change. Once 2 consecutive aPTT values are therapeutic, requiring no change in heparin infusion rate, monitor aPTT once daily until heparin infusion is discontinued.

Example: For a patient starting on the High Intensity Nomogram at **Queens**, bolus 80 units/kg (max 9,999 units) and start infusion at 18 units/kg/hr. If subsequent aPTT value is 52 sec, re-bolus 40 units/kg (max 5,000 units) and increase infusion by 2 units/kg/hr and repeat aPTT in 6 hours.

Table 2. Moderate Intensity Nomogram

MODERATE INTENSITY NOMOGRAM Clinical Example: ACS/AF/Chronic VTE							
Initial Dose*							
Bolus Dose				Infusion Dose			
60 units/kg (Max 9,999 units)				12 units/kg/hour			
aPTT Goal per Campus (sec) and Dose Adjustments							
Westchester	CUIMC and Allen	Weill Cornell and LMH	Queens	Brooklyn Methodist	HVH	Re-bolus Dose	Infusion Dose Changes
< 47	< 35	< 33	< 45.9	< 37	<39	80 units/kg (Max 9,999 units)	Increase by 4 units/kg/hour
47-59.9	35-50.9	33-49.4	45.9-64.2	37-65.4	39-54.9	40 units/kg (Max 5,000 units)	Increase by 2 units/kg/hour
60-95	51-83	49.5-80.9	64.3-101.2	65.5-97.1	55-85	At Goal, No Change	No Change
95.1-115.9	83.1-106.9	81-104.9	101.3-128.8	97.2-121	85.1-109	No Bolus	Decrease by 2 units/kg/hour
> 115.9	> 106.9	> 104.9	> 128.8	> 121	>109	No Bolus	STOP infusion for 1 hour and decrease by 3 units/kg/hour

*Use dry weight

Note: aPTT should be monitored 6 hours after heparin initiation or any dosage change. Once 2 consecutive aPTT values are therapeutic, requiring no change in heparin infusion rate, monitor aPTT once daily until heparin infusion is discontinued.

Example: For a patient starting on Moderate Intensity Nomogram at **Queens**, bolus 60 units/kg (max 9,999 units) and start infusion at 12 units/kg/hr. If subsequent aPTT value is 52 sec, re-bolus 40 units/kg (max 5,000 units) and increase infusion by 2 units/kg/hr and repeat aPTT in 6 hours.

Table 3: Low Intensity Nomogram

LOW INTENSITY NOMOGRAM									
Clinical Example: post-surgical patient, high bleeding risk									
Initial Dose*									
Bolus Dose					Infusion Dose				
None					12 units/kg/hour				
aPTT Goal per Campus (sec) and Dose Adjustments									
Westchester	CUIMC and Allen	Weill Cornell and LMH	Queens	Brooklyn Methodist	HVH	Re-bolus Dose	Infusion Dose Changes		
< 47	< 35	< 33	< 45.9	< 37	<39	No Bolus	Increase by 4 units/kg/hour		
47-59.9	35-50.9	33-49.4	45.9-64.2	37-65.4	39-54.9	No Bolus	Increase by 2 units/kg/hour		
60-95	51-83	49.5-80.9	64.3-101.2	65.5-97.1	55-85	At Goal, No Change			
95.1-115.9	83.1-106.9	81-104.9	101.3-128.8	97.2-121	85.1-109	No Bolus	Decrease by 2 units/kg/hour		
> 115.9	> 106.9	> 104.9	> 128.8	> 121	>109	No Bolus	STOP infusion for 1 hour and decrease by 3 units/kg/hour		

* Use dry weight

Note: aPTT should be monitored 6 hours after heparin initiation or any dosage change. Once 2 consecutive aPTT values are therapeutic, requiring no change in heparin infusion rate, monitor aPTT once daily until heparin infusion is discontinued.

Example: For a patient starting on Low Intensity Nomogram at **Queens**, do not bolus and start infusion at 12 units/kg/hr. If subsequent aPTT value is <45.9 sec, do not bolus, increase infusion by 4 units/kg/hr and repeat aPTT in 6 hours.

Table 4: Anti-Xa Dosing Recommendations for Goal of 0.3-0.7 units/mL (Use only with heparin titratable by provider)

Heparin Activity (Anti-Xa) Level (Units/mL)	Bolus Dose	Infusion Dose
<ul style="list-style-type: none"> Nurses should draw anti-Xa levels and adjust heparin dosing per provider orders only 		
< 0.2	80 units/kg (Max 9,999 units)	Increase by 4 units/kg/hour
0.2 - 0.29	40 units/kg (Max 5,000 units)	Increase by 2 units/kg/hour
0.3 - 0.7		At Goal, No Change
0.71 - 0.8	No bolus	Decrease by 1 unit/kg/hour
0.81 - 0.99	No bolus	Decrease by 2 units/kg/hour
≥ 1	No bolus	STOP infusion for 1 hour and decrease by 3 units/kg/hour

Table 5: Anti-Xa Dosing Recommendations for Goal of 0.1-0.3 units/mL (Use only with heparin titratable by provider)

Heparin Activity (Anti-Xa) Level (Units/mL)	Bolus Dose	Infusion Dose
<ul style="list-style-type: none"> Nurses should draw anti-Xa levels and adjust heparin dosing per provider orders only 		
< 0.1	No bolus	Increase by 2 units/kg/hour
0.1 - 0.3		At Goal, No Change
0.31 - 0.7	No bolus	Decrease by 1 unit/kg/hour
> 0.7	No bolus	STOP infusion 1 hour and decrease by 2 units/kg/hour

NewYork-Presbyterian Hospital, Hudson valley Hospital, Queens

Sites: All Centers

Policy: Medication Use Manual

Page 10 of 10

Table 6: Nursing Documentation: MAR Action, BCMA & Dual Signature, Brain Task/ED Alert Reminder

MAR Action	Definition	BCMA & Dual Signature	Brain Task/ED Alert Reminder
Initial Bag	To be documented when first starting heparin infusion.	Patient & Product Scanning is required. Dual signature is required	Triggers a brain task/ED Alert reminder 5 hours later to release and draw aPTT.
Bolus from Bag	To be documented when initial or maintenance bolus is administered.	Patient & Product Scanning is required. Dual signature is required.	
New Bag/Syringe/Cartridge	To be documented when administering subsequent bags with no rate/dose change.	Patient & Product Scanning is required. Dual signature is required.	
Restarted (Dual Sign Required)	To be documented when resuming a heparin infusion.	Patient & Product Scanning is required. Dual signature is required.	Triggers a brain task/ED Alert reminder 5 hours later to release and draw aPTT.
Rate Dose Change	To be documented when modifying the heparin infusion according to nomogram.	Patient & Product Scanning is not required. Dual signature is required.	Triggers a brain task/ED Alert reminder 5 hours later to release and draw aPTT.
Stopped (Dual Sign Required)	To be documented when stopping the heparin infusion. DO NOT USE "HELD"	Patient & Product Scanning is not required. Dual signature is required.	
First Therapeutic aPTT Level Confirmed	To be documented when the aPTT level first comes into therapeutic range.	Patient & Product Scanning is not required. Dual signature is not required.	Triggers a brain task/ED Alert reminder 5 hours later to release and draw aPTT.
Second Therapeutic aPTT Level Confirmed	To be documented when 2 aPTT levels in therapeutic range.	Patient & Product Scanning is not required. Dual signature is not required.	Triggers a brain task/ED Alert reminder 23 hours later to release and draw aPTT (Note: aPTT should be checked daily in the AM)
NO MAR Action needed	After the Second consecutive Therapeutic aPTT level is confirmed. Patients will be on daily aPTT with AM labs.		No Brain Task/ED Alert Reminder, do not use PRN aPTT as long as patient remains therapeutic.
Handoff (Dual Sign Required)	To be documented at change of shift or transition of care by the oncoming/sending and outgoing/receiving nurse after checking the infusion pump and order together	Patient & Product Scanning is not required. Dual signature is required.	

From: Perlstein, Lori <Imp9010@nyp.org>
Sent: Friday, August 4, 2023 9:12 AM
To: NYP Nursing All <ddl_nyp_nurse_all@nyp.org>
Subject: Heparin Titratable Protocol E Learning Module

**MESSAGE FROM THE INSTITUTE OF NURSING EXCELLENCE AND INNOVATION
NURSING PROFESSIONAL DEVELOPMENT**

Good morning colleagues,

As a result of the upcoming implementation of a **new titratable heparin protocol**, an e learning module has been deployed this week to assist you to learn the new process. This has been assigned to all inpatient adult nurses, adult procedural area nurses, and adult emergency department nurses. The title of the module is "Adult Heparin Titration Protocol for Inpatient Nurses", and it has been deployed to your " My Learning" page in Workday. The due date for completion of the module is **8/31/23** and the go live date is **9/12/23**.

Thank you for your attention to this.

Best,
Lori

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Adult Heparin Titration Protocol for Inpatient Nurses

This module will review the workflow updates associated with the Adult Heparin Titration Protocol for Inpatient Nurses.

Lessons in This Course

Additional Course Details

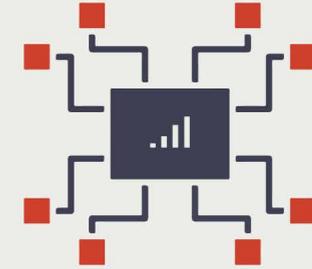
Lessons in This Course

Completed 0/1

1

Inpatient Nursing Adult Heparin Titr...

Media



INFORMATION SYSTEMS

Start Course

★★★★★ (1274)

Duration Lessons

5 minutes 1

Delivery Mode

Self-Directed

CONTACTS



Marlon Sim

Contact Person



IMPORTANT - Practice Alert: New Adult Heparin Infusion Protocol - Go-live Tuesday, 9/12/2023

Wang, Faye <haw9004@nyp.org>

Wed 9/6/2023 10:59 AM

To: NYP Nursing All <ddl_nyp_nurse_all@nyp.org>; NYP Nursing Management <ddl_nyp_nurse_mgmt@nyp.org>

📎 4 attachments (946 KB)

Practice Alert - New Heparin Infusion Protocol.pdf; sept 12_Baxter v9 interop_Queens and Westchester only.pdf; sept 12_Baxter v8 v9 non interop_WC, LMH, Allen, CHONY, Millstein, Westchester Behavioral, HVH infusion center.pdf; Cutover Job Aid.pdf;

Message from the Institute of Nursing Excellence and Innovation

Topic: New Adult Heparin Infusion Protocol

Go-live: Tuesday, September 12, 2023

Who is this message for:

All Registered Professional Nurses in **Adult** Inpatient units, ED, & PACU.

- **Applicability** – sites that administer heparin infusions (AH, BMH, CUIMC, LMH, MSCH, W, WC, HVH, Q)

What is happening:

Starting September 12, 2023, a new adult heparin titratable infusion protocol will go-live, including the following key practice changes:

- ⇒ New order panels have been created in Epic for “titration” of heparin. The new heparin titratable infusion protocol is **weight-based, dosed as units/kg/hr** by default, includes aPTT initial and ongoing specimen collection and has criteria for adjustment of heparin dosing based on the aPTT results.
 - **Exception:** Heparin infusions for CRRT, IR Thrombolysis and Catheter Directed Thrombolysis (i.e., Impella) will continue to be dosed as units/hr.
- ⇒ **The new heparin titratable infusion can be adjusted by nurses** based on aPTT values and specific indications and criteria in the updated hospital policy/protocol.
- ⇒ **Dual signature on Heparin infusion is required for all clinical areas** except Intra-operative and intra-cath procedures.

Why is this happening:

- ⇒ **Patient Safety:** To ensure timely and accurate adjustment of the heparin infusion according to aPTT values without having to get new heparin infusion orders for each adjustment needed.
- ⇒ **RN Autonomy:** This heparin titratable infusion protocol facilitates RN autonomy to adjust the heparin dose and rate based on defined criteria in the order panel.

How this will affect you:

RNs are responsible for implementing the following steps:

1. **Patient Weight:** Ensure that there is a current accurate weight documented in patient's chart prior to initiation of the Heparin Titration Infusion Protocol.
2. **Infusion Pump Drug Library Updates:** An updated drug library with the new heparin infusion weight-based protocol will be electronically pushed to all infusion pumps on **September 12, 2023 at 10:00 AM.**
 - Nursing and Biomed teams will need to turn off and turn on all pumps and acknowledge the new library once it is published wirelessly on the server (see attachments)
 - Ensure that all pumps are plugged in and have Wi-Fi connectivity as indicated by a green icon at the upper right-hand corner of the pump screen.
3. **ONE-Time Step Cutover – New Heparin Titration Infusion Order Panel:** On the morning of September 12, 2023, providers will determine the specific Heparin Titratable Infusion Protocol order panel Intensity needed based on patient assessment. Conversion from prior heparin infusion orders to the new Heparin Titratable Infusion Protocol.
4. **aPTT Specimen Collection:** Nurses will be able to titrate heparin infusion per protocol. Similar to the current insulin drip workflow, a **new Heparin Titratable Infusion order panel** provides clear instructions for nurses to adjust Heparin dosing based on aPTT results. If the patient falls out of the nomogram aPTT ranges or frequency of monitoring, notify the provider.
 - Monitoring and releasing of aPTT labs must be performed at the required frequencies (i.e., 6 hours after initiation) according to the updated hospital protocol.
 - A new Epic brain task (inpatient/PACU) or an alert (ED) is triggered by the new MAR actions to remind nurses to release the aPTT lab drawn after initiation of the Heparin infusion.
 - A new push notification of an aPTT result to Rover is created to alert the nurse that patient's lab result is back, and a MAR action is needed.
5. **RN to Provider Communication:** If the patient falls out of the Heparin Titration Infusion Nomogram aPTT ranges or frequency of monitoring, notify the provider and document this provider notification in the patient's medical record.

Key resources:

▪ Tip sheets:

- **For Nursing:** [IP Nursing Heparin Titration Protocol](#) and [ED Nursing Heparin Titration Protocol](#)
- **For Providers:** [ED & Inpatient Provider Tipsheet for the Heparin Infusion Protocol](#)
- [Inpatient Nursing Heparin e-Learning Module](#)
- [ED Nursing Heparin e-Learning Module](#)
- [Baxter v9 Drug Library Updates – Queens and Westchester \(attached\)](#)
- [Baxter v8/v9 Drug Library Updates – WC, LMH, AH, CUIMC, MSCH, HV Infusion Center \(attached\)](#)
- [Cutover Job Aid \(attached\)](#)
- **POLICY Posting:** The Updated Hospital Policy/Protocol for the Heparin Infusion will be posted on the Infonet on September 12, 2023

Whom to contact with Questions/Feedback:

- **For Epic issues:** Submit a message to Epic Application Support directly by clicking on the "Epic Help" button within Epic itself, email epictogethersupport@nyp.org, or call your institutional Service Desk:
 - NYP: 4-HELP or 212-746-4357
 - CUIMC: 5-HELP or 212-305-4357
 - WCM: 212-746-4878
- **For Clinical practice issues:** contact immediate supervisor or pharmacy
- **For Pump drug library issues:** contact Enterprise Pharmacy Informatics: pharmacyinformatics@nyp.org

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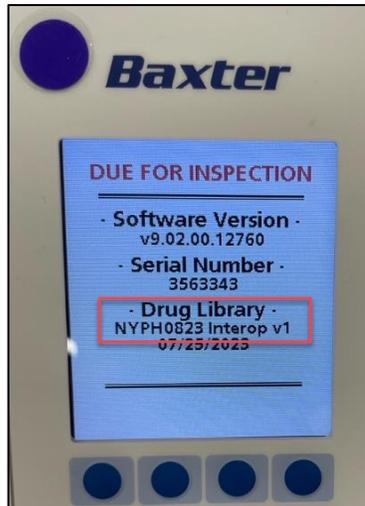
APPLICABILITY: All Areas (Including NYPW and NYPQ with the Smart Pumps)

PROCESS STEPS: ONLY for CUTOVER from ORIGINAL Heparin Infusion Order to NEW Heparin Titration Order – IMPLEMENTATION DATE – TUESDAY, SEPTEMBER 12, 2023

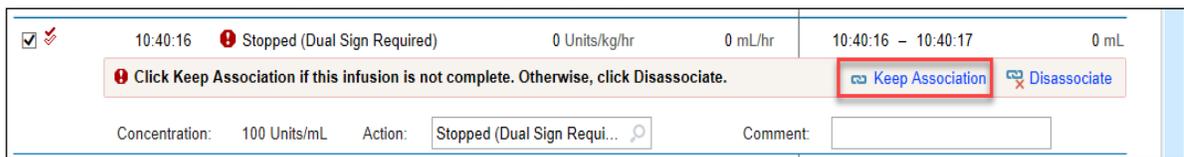
1. A new heparin titration order will be placed. At the determined time, stop the infusion and clear programming on the pump.
 - **For NYPW and NYPQ:** After the original order is discontinued, keep the infusion running on the pump. The pump will continue to send infusion data to Epic.



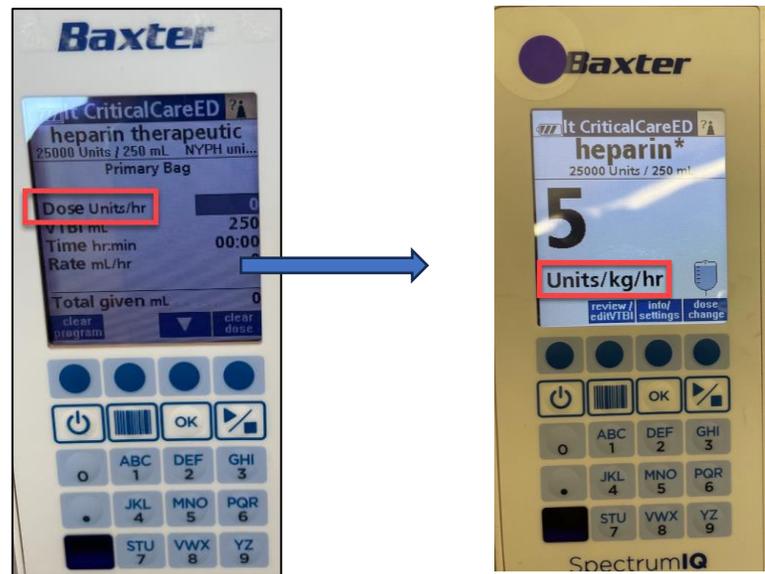
2. Turn off the pump and turn it back on to update the drug library. The Updated Drug Library will state the following:
 - a. **NYPH0923 Interop** for NYP Westchester and NYP Queens
 - b. **NYPH0923 Non Interop** for all other Baxter Sites



- **For NYPW and NYPQ:** As the pump is powering back on and downloading the new drug library, complete "Infusion Verify" in Epic to accept volumes of the original order and keep the pump's association.



- Once the drug library has been updated, units/Hr will be updated to units/kg/hr.



- To start and program the pump with the new order, follow the usual workflow on placing a patient on an infusion.
 - NYPW and NYPQ:** To start and program the pump with the new order, scan the patient then scan the pump like you normally would. You may be prompted to associate the new order with the pump, the user should select continue.

Date/Time: Sept 12, 2023 9AM

Who this message is for: Nursing and Biomed Leadership at **WC, LMH, Allen, CHONY, Milstein, Westchester Behavioral and HVH Infusion Center**

What's happening? Baxter v8/v9 non interoperability Smart Pump Drug Library Update (Library Name: **NYPH0923 non interop**)

How will this affect you? Nursing and Biomed team will need to power on all pumps and acknowledge the new library once it is published wirelessly on the Baxter server. Please see below for guidance on how to load the updated drug library and for a summary of changes made to the Baxter v8/v9 non interop Drug Library.

Please turn on all Baxter Infusion pump for the new drug library to be loaded. Confirm Wi-Fi connectivity as indicated by a green icon at the upper right-hand corner of the pump.

If you have an issue with the upload, return pumps through the equipment center/BioMed at your campus

- Baxter v8/v9 non interop Drug library changes are listed below.
- The new Drug Library version on the pump will be available starting **Sept 12, 2023 @ 9AM**.
- To verify if the pump has been updated, check for the new Baxter Drug library name **NYPH0923 non interop**

Steps to load the updated library on the pump/recommended process to prompt drug library download:

Scenario 1: At the end of every infusion OR before hanging another bag:

1. Press Stop
2. Press the Clear Program key. If a new drug library is in queue, a blue bar will appear with text: 'Receiving New Drug Library'
3. When prompted, press OK. When the new drug library is installed, the screen will display: 'New Drug Library Loaded.'
4. Program or re-program the infusion using the drug library.

Scenario 2: When starting a NEW infusion:

1. Select 'New Patient'
2. Press the 'Yes' soft key. If a new drug library is in queue, a blue bar will appear with text: 'Receiving New Drug Library'
3. When prompted, press OK. When the new drug library is installed, the screen will display: 'New Drug Library Loaded.'
4. Program the new infusion using the drug library

Who to contact with questions/feedback: Enterprise Pharmacy Informatics at pharmacyinformatics@nyp.org.

Baxter v8 and v9 non interop Drug Library Update:

- **Addition/change of modifier to pertinent Adult Care Areas :**
 - Magnesium sulfate:
 - asthma use only
 - Heparin:
 - wt based-units/kg/hr
 - CRRT/thromb-units/hr
 - INR/hemodialysis use
 - for Impella

Saturday January 20, 2024

heparin 25,000 units in dextrose 5 % 250 mL (100 units/mL) premix Ordered Dose: 310-1,830 Units/hr : 3.1-18.3 mL/hr : Intravenous : Continuous :

Initial Bag at 1/20/24 0925 Documented By: Martinez, David Dual Signoff By: Basa, Shirley Dose: 12 Units/kg/hr Rate: 7.3 mL/hr Documented Location: MIL 5 GARDEN NORTH

0925 Initial Bag 12 Units/kg/hr

Admin Instructions: MODERATE Intensity Titration Protocol INITIAL INFUSION DOSE: 12 units/kg/hr.

aPTT < 35: BOLUS 80 units/kg THEN INCREASE by 4 units/kg/hr. aPTT 35-50.9: BOLUS 40 units/kg THEN INCREASE by 2 units/kg/hr. aPTT 51-83: NO CHANGE (At therapeutic range). aPTT 83.1-106.9: DECREASE by 2 units/kg/hr. aPTT > 106.9: STOP infusion for 1 hour THEN DECREASE by 3 units/kg/hr. No dose change or bolus is needed based on aPTT collected within 6 hours of heparin initiation. If 2 consecutive aPTT are out of therapeutic range notify the provider.

Heparin infusion order valid at NYP Milstein and Allen only. Contact provider to reorder if at different campus.

Product Instructions: High Alert Order Questions/Answers Indication of use: Atrial Fibrillation/Flutter

Order ID: 666636194 Ordered Admin Dose: 310-1,830 Units/hr Last Admin: Yesterday 01/20/24 at 2349 (Initial Bag) Dispense Location: M5GN_BX Omnicell Recent Result Components APTT 46.0 second(s) (A) ! collected at 01/20/24 2234

David Martinez, RN and Shirley Basa, RN performed independent double checks and dual signatures at the initiation of heparin infusion.

Assigned Bed: MIL 5 GARDEN Code: Full (no Advance Directives on File) Search (Ctrl+Space) PRECAUTIONS Aspiration Precautions Review Transfusion Status Infection: None Mintz, Ari, DO Attending 1st Contact w/ ED: Kotha, Bhavitha, MD Allergies: No Known Allergies Collection Status: Lab Collect Level of Care: Acute (Floor) [1] No orders to acknowledge ADMITTED: 1/5/2024 (16 D) Expected Discharge: 2 d Lung nodule Ht: 154 cm Last Wt: 61 kg SIGNED AND HELD ORDERS NO ORDERS TO ACKNOWLEDGE NEW RESULTS, LAST 36H

Open Sidebar

ALL Scheduled PRN Continuous Respiratory Due/Overdue Meds Override Pulls Chemo MAR Hold

Go to Now or Select Date: Overdue Infusions Not Scanned Show Med Education Show All Details Hide All Admins

Saturday January 20, 2024

1300 1400 1500 1600 1700 1800 1900 2000

heparin 25,000 units in dextrose 5 % 250 mL (100 units/mL) 310-1,830 Units/hr : 3.1-18.3 mL/hr : Intravenous : Continuous :

Handoff (Dual Sign Required) at 1/20/24 1938 Documented By: Martinez, David Dual Signoff By: Enriquez, Lucille Dose: 12 Units/kg/hr Rate: 7.3 mL/hr Documented Location: MIL 5 GARDEN NORTH

1938 Handoff (Dual 12 Units/kg/hr)

Admin Instructions: MODERATE Intensity Titration Protocol

INITIAL INFUSION DOSE: 12 units/kg/hr.

aPTT < 35: BOLUS 80 units/kg THEN INCREASE by 4 units/kg/hr.

aPTT 35-50.9: BOLUS 40 units/kg THEN INCREASE by 2 units/kg/hr.

aPTT 51-83: NO CHANGE (At therapeutic range).

aPTT 83.1-106.9: DECREASE by 2 units/kg/hr.

aPTT > 106.9: STOP infusion for 1 hour THEN DECREASE by 3 units/kg/hr.

No dose change or bolus is needed based on aPTT collected within 6 hours of heparin initiation.

If 2 consecutive aPTT are out of therapeutic range notify the provider.

Heparin infusion order valid at NYP Milstein and Allen only. Contact provider to reorder if at different campus.

Product Instructions:

High Alert

Order Questions/Answers

Indication of use: Atrial Fibrillation/Flutter

Order ID: 666636194

Ordered Admin Dose: 310-1,830 Units/hr

Last Admin: Yesterday 01/20/24 at 2349 (Initial Bag)

Dispense Location: M5GN_BX Omnicell

Recent Result Components

APTT 46.0 second(s) (A) ! collected at 01/20/24 2234

David Martinez, RN and Lucille Enriquez, RN performed independent double checks and dual signatures at handoff. Based on the Moderate Intensity Titration Protocol, no dose change was needed since aPTT was within therapeutic range. (aPTT was 81.8 seconds at 3:55pm).

Language: ENGLISH
Assigned Bed: MIL 5 GARDEN
Code: Full (no Advance Directives on File)
Search (Ctrl+Space)
PRECAUTIONS: Aspiration Precautions
Review Transfusion Status
Infection: None
Mintz, Ari, DO Attending
1st Contact w/ ED: Kotha, Bhavitha, MD
Allergies: No Known Allergies
Collection Status: Lab Collect
Level of Care: Acute (Floor) [1]
No orders to acknowledge
ADMITTED: 1/5/2024 (16 D)
Expected Discharge: 2 d
Lung nodule
Ht: 154 cm
Last Wt: 61 kg
SIGNED AND HELD ORDERS
NO ORDERS TO ACKNOWLEDGE
NEW RESULTS, LAST 36H

Open Sidebar

APTT

Activated Partial Thromboplastin Time

Collected: 01/20/24 1555

Result status: Final

Resulting lab: NYP_Columbia

Reference range: 27.0 - 38.4 second(s)

Value: 81.8 ^

Comment: Sample stability for APTT is 4 hours. Samples exceeding the stability period may be inaccurate. Please correlate results with clinical presentation. Therapeutic range for heparin: 51-83 seconds.

*Additional information available - comment

Patient:

MRN:

DOB:

SEX:

! Activated Partial Thromboplastin Time

Status: **Final result** Connect: **Released on** 1/20/2024 5:01 PM

! Newer results are available. Click to view them now.

	Value	Range
Activated Partial Thromboplastin Time	81.8 (H)	27.0 - 38.4 second(s)

Comments:

Sample stability for APTT is 4 hours. Samples exceeding the stability period may be inaccurate. Please correlate results with clinical presentation. Therapeutic range for heparin: 51-83 seconds.

Performing Lab: NYP_Columbia

CLIA: 33D0664187

Director: HOD, M.D.,ELDAD A.

Address: 622 West 168th Street New York NY 10032

Accession #:

Specimen Type: **Blood**

Specimen Collected:

Specimen Received

01/20/24 3:55 PM

Date: 01/20/24 4:39

PM

Last Resulted:

01/20/24 5:01 PM



heparin 25,000 units in dextrose 5 % 250 mL (100 310-1,830 Units/hr : 3.1-18.3 mL/hr : Intravenous : Continuous :

Initial Bag at 1/20/24 2349 Documented By: Enriquez, Lucille Dual Signoff By: Carrera, Jennifer Dose: 14 Units/kg/hr Rate: 8.5 mL/hr Documented Location: MIL 5 GARDEN NORTH

2349 Initial Bag 14 Units/kg/hr

Admin Instructions:

MODERATE Intensity Titration Protocol

INITIAL INFUSION DOSE: 12 units/kg/hr.

aPTT < 35: BOLUS 80 units/kg THEN INCREASE by 4 units/kg/hr.

aPTT 35-50.9: BOLUS 40 units/kg THEN INCREASE by 2 units/kg/hr.

aPTT 51-83: NO CHANGE (At therapeutic range).

aPTT 83.1-106.9: DECREASE by 2 units/kg/hr.

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No dose change or bolus is needed based on aPTT collected within 6 hours of heparin initiation.

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Heparin infusion order valid at NYP Milstein and Allen only. Contact provider to reorder if at different campus.

Product Instructions:

High Alert

Order Questions/Answers

Indication of use: Atrial Fibrillation/Flutter

Ordered Admin Dose: 310-1,830 Units/hr

Recent Result Components

APTT 46.0 second(s) (A) ! collected at 01/20/24 2234

Last Admin: Yesterday 01/20/24 at 2349 (Initial Bag)

Dispense Location: M5GN_BX Omnicell

Lucille Enriquez, RN and Jennifer Carrera, RN exercised nursing autonomy to adjust the heparin dose by 2 units/kg/hr, from the initial dose of 12 units/kg/hr to 14 units/kg/hr based on Moderate Intensity Titration Protocol.

Assigned Bed: MIL 5 GARDEN

Code: Full (no Advance Directives on File)

PRECAUTIONS Aspiration Precautions

Review Transfusion Status

Infection: None

Mintz, Ari, DO Attending

1st Contact w/ ED: Kotha, Bhavitha, MD

Allergies: No Known Allergies

Collection Status: Lab Collect

Level of Care: Acute (Floor) [1]

No orders to acknowledge

ADMITTED: 1/5/2024 (16 D)

Expected Discharge: 2 d

Lung nodule

Ht: 154 cm

Last Wt: 61 kg

SIGNED AND HELD ORDERS

NO ORDERS TO ACKNOWLEDGE

NEW RESULTS, LAST 36H