Date of Hearing: April 18, 2017

ASSEMBLY COMMITTEE ON BUSINESS AND PROFESSIONS
Rudy Salas, Chair
AB 613 (Nazarian) – As Amended March 27, 2017

SUBJECT: Healing arts: clinical laboratories.

SUMMARY: Authorizes, until January 1, 2020, a person who meets specified criteria to perform a total protein refractometer test using digital refractometer in a licensed plasma collection facility in this state, as specified.

EXISTING FEDERAL LAW:

1) Regulates laboratory testing and requires that clinical laboratories obtain a certificate before accepting materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or the impairment of, or assessment of the health of human beings. (Clinical Laboratory Improvement Amendments (CLIA), Title 42 United States Code (USC) § 263a)

2) Defines "laboratory" as a facility for the biological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examination of materials derived from the human body for the purpose of providing information for the diagnosis, prevention, or treatment of any disease or impairment of, or the assessment of the health of, human beings. These examinations also include procedures to determine, measure, or otherwise describe the presence or absence of various substances or organisms in the body. Facilities only collecting or preparing specimens (or both) or only serving as a mailing service and not performing testing are not considered laboratories. (Title 42 Code of Federal Regulations (CFR) § 493.2)

3) Classifies laboratory tests using three categories: "waived tests," "moderate complexity," or "high complexity," and requires laboratories to meet varying requirements based on the type of test performed (Title 42 Code of Federal Regulations (CFR) §§ 493.3, 493.5)

4) Defines "waived tests" as simple laboratory examinations and procedures which: 1) are cleared by Federal Food and Drug Administration (FDA) for home use; 2) employ methodologies that are so simple and accurate as to render the likelihood of erroneous results negligible; or 3) pose no reasonable risk of harm to the patient if the test is performed incorrectly. (42 CFR § 493.15)

5) Requires laboratories to ensure that each individual performing moderate complexity testing possesses a current license issued by the state where laboratory is located, if a license is required, and meet one of the following requirements: (42 CFR § 493.1423)

    a) Be a doctor of medicine or doctor of osteopathy licensed to practice medicine or osteopathy in the State in which the laboratory is located or have earned a doctoral, master's, or bachelor's degree in a chemical, physical, biological or clinical laboratory science, or medical technology from an accredited institution.

b) Have earned an associate degree in a chemical, physical or biological science or medical laboratory technology from an accredited institution.

c) Be a high school graduate or equivalent and have successfully completed an official military medical laboratory procedures course of at least 50 weeks duration and have held the military enlisted occupational specialty of Medical Laboratory Specialist (Laboratory Technician).

d) Have earned a high school diploma or equivalent, and have documentation of training appropriate for the testing performed prior to analyzing patient specimens.

6) Provides for the regulation and licensure of biological products and manufacturers. (42 U.S. Code § 262; 21 CFR §§ 600-680.3)

7) Defines "source plasma" as the fluid portion of human blood collected by plasmapheresis and intended as source material for further manufacturing use. The definition excludes single donor plasma products intended for intravenous use. (21 CFR § 640.60)

8) Defines "plasmapheresis" as a procedure in which, during a single visit to the establishment, blood is removed from a donor, the plasma separated from the formed elements, and at least the red blood cells returned to the donor; requires this procedure to be described in detail in a biologics license application; and specifies the requirements for performing the procedure. (21 CFR § 640.65)

9) Defines and sets forth classification of clinical chemistry and clinical toxicology devices intended for human use that are in commercial distribution. (21 CFR §§ 862.1-862.3950)

10) Defines total protein test system as a device intended to measure total protein(s) in serum or plasma. Measurements obtained by this device are used in the diagnosis and treatment of a variety of diseases involving the liver, kidney, or bone marrow as well as other metabolic or nutritional disorders. (21 CFR § 862.1635(a))

11) Defines "refractometer" as a device used to determine the amount of solute in a solution by measuring the index of refraction (the ratio of the velocity of light in a vacuum to the velocity of light in the solution). The index of refraction is used to measure the concentration of certain analytes (solutes), such a plasma total proteins and urinary total solids. Measurements obtained by this device are used in the diagnosis and treatment of certain conditions. (21 CFR § 862.2800(a))

EXISTING STATE LAW:

1) Provides for the licensure, registration, and regulation of clinical laboratories and various clinical laboratory personnel by the California Department of Public Health (CDPH), with specified exceptions. (BPC § 1200-1327)

2) Defines, for purposes of state regulation of clinical laboratories, the following:

a) "CLIA" means the federal Clinical Laboratory Improvement Amendments of 1988 (42 U.S.C. Sec. 263a; P.L. 100-578) and the regulations adopted thereunder by the federal

Health Care Financing Administration and effective on January 1, 1994, or any later date, when adopted in California pursuant to subdivision (b) of Section 1208. (BPC § 1202.5(a))

b) "HCFA" means the Health Care Financing Administration of the federal Department of Health and Human Services. (BPC § 1202.5(a))

c) "Clinical laboratory" meant any place used, or any establishment or institution organized or operated, for the performance of clinical laboratory tests or examinations or the practical application of the clinical laboratory sciences. That application may include any means that applies the clinical laboratory sciences. (BPC § 1206(a)(8))

d) "Direct and constant supervision" means personal observation and critical evaluation of the activity of unlicensed laboratory personnel by a physician and surgeon, or by licensed clinical laboratory personnel other than a trainee, during the entire time that the unlicensed laboratory personnel are engaged in authorized clinical laboratory activities. (BPC § 1206(a)(9))

e) "Direct and responsible supervision" means both of the following: (BPC § 1206(a)(10))

   i) Personal observation and critical evaluation of the activity of a trainee by a physician and surgeon, or by a person licensed under this chapter other than a trainee, during the entire time that the trainee is performing clinical laboratory tests or examinations.

   ii) Personal review by the physician and surgeon or the licensed person of all results of clinical laboratory testing or examination performed by the trainee for accuracy, reliability, and validity before the results are reported from the laboratory.

f) "Point-of-care laboratory testing device" means a portable laboratory testing instrument to which the following applies: (BPC § 1206(a)(14))

   i) It is used within the proximity of the patient for whom the test or examination is being conducted.

   ii) It is used in accordance with the patient test management system, the quality control program, and the comprehensive quality assurance program established and maintained by the laboratory, as specified.

   iii) It meets the following criteria:

      (1) Performs clinical laboratory tests or examinations classified as waived or of moderate complexity under the federal Clinical Laboratory Improvement Amendments of 1988 (CLIA) (42 U.S.C. Sec. 263a).

      (2) Performs clinical laboratory tests or examinations on biological specimens that require no preparation after collection.

      (3) Provides clinical laboratory tests or examination results without calculation or discretionary intervention by the testing personnel.

(4) Performs clinical laboratory tests or examinations without the necessity for testing personnel to perform calibration or maintenance, except resetting pursuant to the manufacturer's instructions or basic cleaning.

3) Establishes the qualifications and scope for unlicensed laboratory personnel: (BPC § 1269)

a) Unlicensed personnel may perform limited activities in a licensed clinical laboratory, under the direct and constant supervision of a physician and surgeon, or licensed clinical laboratory personnel other than a trainee, upon meeting all of the following criteria:

i) Have earned a high school diploma, or its equivalent, as determined by HCFA under CLIA.

ii) Have documentation of training appropriate to ensure that the individual has all of the following skills and abilities:

(1) The skills required for proper specimen collection, including patient preparation, labeling, handling, preservation or fixation, processing or preparation, and transportation and storage of specimens.

(2) The skills required for assisting a licensed physician and surgeon or personnel licensed under this chapter, other than trainees, in a licensed clinical laboratory.

(3) The skills required for performing preventive maintenance, and troubleshooting.

(4) A working knowledge of reagent stability and storage.

(5) The skills required for assisting in the performance of quality control procedures, and an understanding of the quality control policies of the laboratory.

(6) An awareness of the factors that influence test results.

b) Unlicensed personnel who meet those criteria may perform activities limited to the following:

i) Biological specimen collection, including patient preparation, labeling, handling, preservation or fixation, processing or preparation, and transportation and storage of specimens.

ii) Assisting a licensed physician and surgeon or personnel licensed under this chapter, other than trainees, in a licensed clinical laboratory.

iii) Assisting in preventive maintenance, and troubleshooting.

iv) Preparation and storage of reagents and culture media.

v) Assisting in the performance of quality control procedures.

c) Notwithstanding the above, unlicensed laboratory personnel, other than a trainee, may, under the supervision and control of a physician and surgeon or licensed clinical laboratory under this chapter, perform specimen labeling, handling, preservation or fixation, processing or preparation, transportation, and storing if he or she meets the following requirements:

   i) Have earned a high school diploma, or its equivalent, as determined by HCFA under CLIA.

   ii) Have documentation of training appropriate to ensure that the individual has all of the following skills and abilities:

      (1) The skills required for proper specimen collection, including patient preparation, labeling, handling, preservation or fixation, processing or preparation, and transportation and storage of specimens.

      (2) The skills required for assisting a licensed physician and surgeon or personnel licensed under this chapter, other than trainees, in a licensed clinical laboratory.

d) Unlicensed laboratory personnel may not do any of the following:

   i) Record test results, but he or she may transcribe results that have been previously recorded, either manually by a physician and surgeon or personnel licensed under this chapter, or automatically by a testing instrument.

   ii) Perform any test or part thereof that involves the quantitative measurement of the specimen or test reagent, or any mathematical calculation relative to determining the results or the validity of a test procedure.

   iii) Perform any phase of clinical laboratory tests or examinations in the specialty of immunohematology beyond initial collection and centrifugation.

e) When any of the following manual methods are employed, the activities of unlicensed laboratory personnel shall be limited as follows:

   i) In the case of qualitative and semi-quantitative “spot, tablet, or stick” tests, the personnel may add the test reagent to the specimen or vice versa, but the results must be read by a physician and surgeon or person licensed under this chapter.

   ii) In the case of microbiological tests the unlicensed laboratory personnel may make primary inoculations of test material onto appropriate culture media, stain slide preparations for microscopic examination, and subculture from liquid media.

f) When any of the following mechanical or electronic instruments are employed, unlicensed laboratory personnel shall not perform any of the following activities:

   i) Standardizing or calibrating the instrument or assessing its performance by monitoring results of appropriate standards and control.

ii) Reading or recording test results, except that the personnel may transcribe results that have been previously recorded automatically by a testing instrument.

iii) Quantitatively measuring any sample or reagents unless done automatically by the instrument in the course of its normal operation or by the use of previously calibrated and approved automatic syringes or other dispensers.

4) Requires a clinical laboratory performing clinical laboratory tests or examinations classified as of moderate or of high complexity under CLIA to obtain a state clinical laboratory license. The CDPH shall issue a clinical laboratory license to any person who has applied for the license on forms provided by the department and who is found to be in compliance with the requirements and regulations pertaining to clinical laboratories. No clinical laboratory license shall be issued by the CDPH unless the clinical laboratory and its personnel meet the CLIA requirements for laboratories performing tests or examinations classified as of moderate or high complexity, or both. (BPC § 1265(a)(1))

5) Prohibits a person from performing a test classified as of moderate complexity test under CLIA unless the test is performed under a laboratory director, as specified, the laboratory director provides documentation of the adequacy of the qualifications and competency of the personnel, and the test is performed by one the following individuals: (BPC § 1206.5)

a) A licensed physician and surgeon;

b) A licensed podiatrist or a licensed dentist;

c) A person licensed to engage in clinical laboratory practice or to direct a clinical laboratory;

d) A certified local health officer.

e) A licensed physician assistant if authorized by a supervising physician and surgeon.

f) A registered nurse.

g) A perfusionist if authorized under BPC § 2590.

h) A respiratory care practitioner.

i) A person certified to perform nuclear medicine technology under CDPH if authorized.

j) Any person if performing blood gas analysis in compliance with BPC § 1245.

k) A certified or licensed emergency medical technician II or paramedic while providing prehospital medical care.

l) A person licensed as a psychiatric technician, as a vocational nurse, or as a licensed midwife, or certified by the CDPH as a nurse assistant or a home health aide, who provides direct patient care, if the person meets the following:

i) Is performing the test as an adjunct to the provision of direct patient care by the person.

ii) Is utilizing a point-of-care laboratory testing device at a site for which a laboratory license or registration has been issued.

iii) Meets the minimum clinical laboratory education, training, and experience requirements set forth in regulations adopted by the CDPH.

iv) Has demonstrated to the satisfaction of the laboratory director that the person is competent in the operation of the point-of-care laboratory testing device for each analyte to be reported.

v) Has participated in a preceptor program until they are able to perform the clinical laboratory tests or examinations with results that are deemed accurate and skills that are deemed competent by the preceptor. For the purposes of this section, a "preceptor program" means an organized system that meets regulatory requirements in which a preceptor provides and documents personal observation and critical evaluation, including review of accuracy, reliability, and validity, of laboratory testing performed.

m) Any person within a physician office laboratory if the test is performed under the supervision of the patient's physician and surgeon or podiatrist who is accessible to the laboratory to provide onsite, telephone, or electronic consultation as needed, as specified.

n) A pharmacist, if ordering drug therapy-related laboratory.

6) Provides for the licensure and regulation of the production of human whole blood, human whole blood derivatives, and other biologics, including plasma derived from whole blood. (Health and Safety Code (HSC) §§ 1600-1630)

7) Defines "biologics" to include the following products which are offered for sale or distribution for the prevention or treatment of disease, except as specified: (HSC § 1600.1)

a) Human whole blood.

b) Human whole blood derivatives specified by regulations.

c) Serum, vaccine, live vaccine, killed vaccine, tissue vaccine, autogenous vaccine, live virus, killed virus, live bacterial culture, killed bacterial culture, bacterin, hormone, tissue extract, gland extract, gland preparation, insulin, and similar products made from human or animal tissues or micro-organisms.

8) Defines "blood bank" as any place where human whole blood, and human whole blood derivatives specified by regulation, are collected, prepared, tested, processed, or stored, or from which human whole blood or human whole blood derivatives specified by regulation are distributed. (HSC § 1600.2; 17 CCR § 997(a))

9) Defines "blood bank depository" as any place other than a blood bank where human whole blood and human whole blood derivatives specified by regulation are stored and held for

transfusion. Blood bank depositories must be clinical laboratories, licensed as a clinical laboratory in this state, or other places where services essentially equivalent are maintained, as determined by the CDPH. For implementation CDPH's regulations, a blood bank depository also is designated as a transfusion service. (HSC §1600.3; 17 CCR § 997(b))

10) Defines "blood component," "blood derivative," or "fractionation products" as any product produced from whole blood, including the individual elements of whole blood which have been processed or manufactured into their individual component parts, in accordance with procedures relating to the preparation and distribution of human plasma and other blood derivatives. (HSC § 1600.35; 17 CCR § 997(g))

11) Defines "whole blood" as the fluid component of the human cardiovascular system composed of liquid and cellular elements. (17 CCR § 997(e))

12) Defines "plasma" as the extracellular portion of anticoagulated whole blood. (17 CCR § 997(f))

13) Defines "production" to include collection, preparation, testing, processing, storage, and distribution of biologics under a license issued by the CDPH. (HSC § 1600.5)

14) Defines "plasma center," as any place where the process of plasmapheresis is conducted, as specified, and includes a place where leukopheresis or platelet pheresis, or both, is conducted. (HSC § 1603.1(g))

15) Prohibits the production of human whole blood or human whole blood derivatives unless licensed with the CDPH under the blood and biologics provisions and the human whole blood or human whole blood derivative is collected, prepared, labeled, and stored, as specified. (HSC § 1602.5(a))

16) Requires each blood bank or plasma center to require as identification either a photographic driver's license or other photographic identification that is issued by the Department of Motor Vehicles from all donors of human whole blood or blood components who receive payment in return for the donation of that blood or blood components. (HSC § 1603.2(a))

17) Specifies that blood may only be processed into plasma in blood banks adequately staffed and equipped for that purpose. The individual directly in charge of plasma processing shall be a California-licensed physician and surgeon or an individual sufficiently trained in laboratory procedures relating to blood banking and plasma processing and whose qualifications have been approved by the CDPH. The staff may include other trained persons necessary for the proper operation of plasma processing. (17 CCR § 1011)

18) Requires that any time blood is collected under a license, adequate medical care for the donor shall be provided. Blood shall be drawn from the donor under the supervision of a physician or registered nurse trained in the procedure. Blood may be collected when a physician is not present on the premises under limited conditions. The final responsibility for the acceptance of donors rests with the attending physician. (17 CCR § 1002)

19) Specifies the following for performance of plasmapheresis: (17 CCR § 1025)

a) Procedural requirements:

   i) No more than 500 milliliters of whole blood shall be removed from a donor at one time, unless the donor's weight is 175 pounds or greater in which case no more than 600 milliliters of whole blood shall be removed from the donor at one time.

   ii) A duly licensed physician and surgeon shall be available as required for blood donations when plasmapheresis is performed.

b) A system shall be employed which gives maximum assurance against any possibility of return of the separated red cells to an individual other than their donor.

c) Examination and laboratory tests required for plasmapheresis to assist in determining a donor's health:

   i) Within no more than one week prior to the initial plasmapheresis, the donor shall be examined and certified to be in good health by a duly licensed physician and surgeon, as indicated in the applicable sections of the regulations. All donors shall have a physical examination by a duly licensed physician and surgeon at least once a year.

   ii) A whole blood hemoglobin or hemoglobin or hematocrit concentration shall be performed prior to each plasmapheresis procedure.

   iii) Determination of total protein shall be done at the time of each plasmapheresis procedure. the total protein shall not be less than 6.0 grams per 100 ml of plasma.

   iv) The ratios of the various protein components of the donor's serum shall be determined from a sample taken at the time of his initial plasmapheresis and at intervals of not more than four months thereafter so long as he remains on a plasmapheresis program.

   v) To qualify for further plasmapheresis, all of the values determined under this section must be within the acceptable normal range.

d) Samples for laboratory tests shall not exceed 30 ml of whole blood in a seven-day period.

THIS BILL:

1) Declares that 1) it is the intent of the Legislature to enact legislation to specify the qualifications of, and the limited circumstances in which, properly trained and supervised personnel may perform a total protein test using a digital refractometer in a licensed plasma collection facility in this state; 2) that digital refractometers are very easy to operate, require the use of one button, and protein concentration is displayed on an LCD screen; and 3) user experience supports that the tests are simple.

2) Authorizes, notwithstanding any other law, a person to perform a total protein test using a digital refractometer in a licensed plasma collection facility in this state, if the CDPH, as part of its routine, fee-supported inspection of California Biologics facilities (plasma centers), including its review of personnel reports for licensed and unlicensed personnel and job

descriptions of all facility positions for a licensed plasma collection facility, determines that all of the following conditions are met:

a) He or she has earned a high school diploma or equivalent, as determined by the Centers for Medicare and Medicaid Services (CMS) pursuant to CLIA.

b) His or her training in the proper procedure to be employed when performing a total protein test using a digital refractometer has been certified by a physician and surgeon licensed in this state or by a licensed clinical laboratory director who is in charge of the licensed plasma collection facility, or their certified, trained designate. The instructor shall document, and the plasma collection facility shall maintain the documentation of, the individual's successful completion of training in the performance of the total protein test using a digital refractometer.

c) He or she performs the total protein test using a digital refractometer under the direction and supervision of the physician and surgeon or licensed clinical laboratory director.

3) Provides that this authorization shall remain in effect only until January 1, 2020, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2020, deletes or extends that date.

FISCAL EFFECT: Unknown. This bill is keyed fiscal by the Legislative Counsel.

COMMENTS:

Purpose. This bill is sponsored by the **Plasma Protein Therapeutics Association**. According to the author, this bill "would authorize a person with specified qualifications to perform a total protein refractometer test using an automatic refractometer with a digital readout in a licensed plasma collection facility in California when the [CDPH], as part of their routine inspections, determines that those specified conditions are met…. Plasma is a critical component of several therapies. By authorizing more people with specified qualifications to perform a total protein refractometer test using an automatic refractometer, we can help serve the needs of more Californians who suffer from rare, chronic, and sometimes life-threatening diseases. Additionally, more efficient operations will encourage the building of new plasma donation centers in the state, which will lead to new plasma donation centers in the state, which will lead to more quality jobs in the ever-growing medical industry."

Background. This bill would provide an exemption under California clinical laboratory testing requirements, allowing an unlicensed individual to perform a total protein test using a digital refractometer during the donor screening process at plasma donation centers. The sponsor of this bill represents private sector manufacturers of plasma protein therapies and collectors of source plasma. According to the sponsor, plasma protein therapies are used to treat medical conditions resulting from insufficient levels of plasma protein, including immune deficiencies and bleeding disorders.

The manufacturers and collectors require plasma donations in order to produce the therapies. In the U.S., plasma donors are paid, and the amount of payment varies by plasma center. These processes are regulated under federal and state biological product and clinical laboratory laws.

Plasma Derived Biologics. Plasma is a component of whole blood and contains blood proteins, which support ordinary bodily functions. Plasma that is separated from blood for the purposes of manufacturing medical products is known as source plasma. Among other things, source plasma can be used to produce therapeutic proteins. Facilities that produce products derived from blood are regulated and licensed under federal and state biologics laws (42 U.S. Code § 262; BPC §§ 1600-1630).

The process for separating source plasma from whole blood is called plasmapheresis (apheresis specific to plasma). Like dialysis, plasmapheresis is a process during which blood is removed from a donor, the plasma separated from the formed elements, and the remaining blood is returned to the donor. Due to the risks involved, both federal and state biologics laws impose safety precautions for source plasma donations, including various testing, timing, and fatality reporting requirements.

According to the FDA's most recent blood transfusion and donor fatality report (for FY 2015), modern blood donation processes are generally safe and the number of reported fatalities associated with donations remains small compared to the number of donations provided. This bill would allow unlicensed plasma donation center personnel, with training and supervision by a licensed physician and surgeon or clinical laboratory director, to perform the screening test performed prior to plasma donation.

CLIA. In addition to regulation under the biologics laws, plasma collectors and plasma derivative manufacturers must comply with the clinical laboratory testing requirements under CLIA. Federal and state law require that a plasma collection center test a donor's total protein level, among other things, prior to undergoing plasmapheresis (42 CFR §640.65(b)(1)(i); CCR, tit. 17, § 1025(b)). According to the sponsor, the total protein test helps detect underlying conditions that may cause complications.

At both the federal and state level, a facility that performs laboratory tests on human specimens for diagnostic or assessment purposes must be certified under CLIA. While CLIA establishes the minimum standards under federal law, it allows states to establish more stringent requirements under state law.

In all cases, the requirements for CLIA certification vary depending on the complexity of the laboratory tests performed. Clinical laboratories or other testing sites need to know whether each test system used is waived, moderate, or high complexity. In general, the more complicated the test, the more stringent the requirements, including increased training and licensing of laboratory personnel. At a minimum, all laboratories must have a licensed clinical laboratory director.

The FDA determines the complexity of laboratory tests under CLIA. Waived tests are simple tests with a low risk for an incorrect result. They include tests listed in the CLIA regulations, tests cleared by the FDA for home use, and tests approved for waiver by the FDA using the CLIA criteria. Tests not classified as waived are assigned a moderate or high complexity category based on seven criteria given in the CLIA regulations, including ease of use, knowledge required, and types of materials tested. For commercially available FDA-cleared or approved tests, the test complexity is determined by the FDA during the pre-market approval process.

At the federal level and in California, anyone may perform a waived test in a licensed laboratory. For moderate complexity tests, federal law requires that, at a minimum, personnel have 1) a high school diploma or equivalent and 2) documentation of training appropriate for the testing performed prior to analyzing patient specimens.

However, in California, only specified licensed, certified, or otherwise authorized individuals may perform moderate complexity tests. There are two exceptions allowing unlicensed individuals to perform a moderate complexity test in California. One is for anyone performing a blood gas analysis under BPC § 1245 and anyone in a physician's office laboratory with a physician readily available.

Total Protein Digital Refractometer Test. According to the sponsors, the centers typically use a digital refractometer to perform the total protein test, which the FDA has categorized as a moderate complexity test. A refractometer is a device that shines a beam of light through a sample of liquid. The device measures the amount of light that is refracted (bent) due to the solids in the sample. In blood, protein causes light to bend. The greater the amount of protein, the more light is bent from the light path.

There are multiple types of protein refractometer devices, ranging from manual to automatic and handheld to benchtop. Depending on the device, the rest requires varying, small samples of blood from the donor, which is then placed into the device. Generally, a manual device requires the user to analyze the sample and calculate the result. An automatic device performs the analysis without input from the user and displays the result, which the user then compares to a set of standard guidelines for total protein levels.

The FDA's medical device database shows that the FDA has classified all total protein refractometer devices as of moderate complexity under CLIA. Because the test is categorized as moderate complexity at the federal level, state law requires that the test is performed by various licensed personnel under the BPC, such as a registered nurse or clinical laboratory scientist. The sponsor argues that the amount of training and education needed for these personnel is in excess of the amount needed for a total protein test using a digital refractometer in a plasma collection facility.

CLIA Waiver by Application. A device manufacturer may submit a CLIA waiver by application if it thinks the FDA has mistakenly categorized the test. In order to have a device reclassified, the application must demonstrate in clinical studies conducted at the intended use sites that the test is accurate and poses little to no risk of incorrect results.

In this case, the sponsor points out that the type of refractometer device it uses to perform total protein tests is simple but that the device manufacturer has not had an incentive to have the device reclassified. However, the sponsor states that the manufacturer of the device has since submit an application to the FDA to have the device re-classified and the process is ongoing.

Other States. According to the sponsor, California and New York are the only states out of the 42 states that have plasma donation centers to require personnel standards that exceed the federal CLIA standards. The sponsor argues that this bill therefore "would bring California's laws in line with the majority of other states that allow a total protein test to be administered by trained and qualified plasma donation center employees."

Prior Related Legislation. AB 757 (Gomez) of 2015 was substantially similar to this bill and would have authorized a person, who meets specified criteria, to perform a total protein refractometer test using an automatic, button-operated refractometer with a digital readout in a licensed plasma collection facility in this state. *NOTE: this bill was vetoed by Governor Brown, who stated that "Failure to perform and report this test accurately could lead to serious health consequences for the donor. The California Department of Public Health does not believe that the standards outlined in the bill for persons to perform this test ensure the health and safety of plasma donors."*

ARGUMENTS IN SUPPORT:

The **Plasma Protein Therapeutics Association** (sponsor) writes in support, "[this bill] will align California's licensing requirements to perform a total protein test at plasma donation centers with those that are followed in 40 other states in conformance with CLIA regulations. This would certainly benefit California communities. Each plasma donation center employs 50 – 100 people. These are good jobs that result in positive fiscal impacts to the community. It is expected that each plasma donation center results in more than $4 million dollars annually infused into the local economy between salaries, taxes and donor fees."

The **American Plasma Users Coalition (APLUS)**, which is made up of the **Alpha-1 Foundation GBS/CIDP Foundation International**, the **Committee of Ten Thousand**, the **Hemophilia Federation of America**, the **Immune Deficiency Foundation**, the **Jeffrey Modell Foundation**, the **National Hemophilia Foundation**, the **National Organization for Rare Disorders (NORD)**, the **Patient Services Incorporated**, the **Platelet Disorder Support Association**, and the **US Hereditary Angioedema Association**, writes in support, "Plasma collected at donation centers in California and across the United States is used in a complex manufacturing process to produce life-saving plasma-derived medicines. It takes many donations to manufacture the plasma protein therapies that are used to treat an individual with a rare, chronic condition that requires plasma protein replacement. It is estimated that it takes 130 donations to produce enough immunoglobulin to treat an adult with primary immune deficiency for a year. For someone with alpha-one antitrypsin deficiency or hemophilia, the estimated number of donations needed for one year of therapy exceeds 900. For this reason, it is essential that laws promote efficient plasma donation policies."

Blood Centers of California writes in support, "The need for source plasma—defined as the fluid portion of human blood collected by plasmapheresis and intended as source material for further manufacturing use is growing. Source plasma is used to develop plasma based medicines and therapies which are used to treat over eighty diseases. Assuring that eligible, trained personnel are available for this growing segment of the blood industry is necessary" (citations omitted).

CSL Plasma, on behalf of **CSL Behring** writes in support, "CSL Behring supports this bill because it would harmonize California law with most other states that allow a total protein refractometer test to be performed by trained and qualified plasma donation center employees at a FDA-licensed center. This test method is simple and reproducible giving a digital read-out that is easy to read and interpret. Thus, the safety of the California donors would not be compromised in any way if the trained center personnel were permitted to perform the test."

Grifols writes in support, "[this bill] allows a specially trained employee, in the unique and limited setting of a plasma donation facility, to operate a virtually automated test with the push of one button, under the supervision of licensed health care personnel—including the responsible physician and surgeon and/or other licensed facility manager. The end goal of this measure is to help our CDPH-licensed plasma donation centers operate more efficiently by authorizing a properly-trained employee to perform this simple task as part of the donor intake process, without diverting other employees from their primary occupations."

Octapharma writes in support, "This measure will allow highly specialized employees in these centers to perform other essential functions, such as conducting donor suitability screenings. CLIA licensed Lab Directors will continue to provide observation and competency reviews of these trained employees performing this simple, almost entirely automated total protein refractometer test analysis, per all CLIA and FDA standards and regulations, while ensuring continued donor safety."

ARGUMENTS IN OPPOSITION:

The **California Association for Medical Laboratory Technology** writes in opposition, "Plasma donors are paid. They can donate every two weeks if their total protein is at least 6 g/dL. Many plasma collection centers 'bleed' their donors down to 6 g/dL of protein regularly. If the protein refractometer test and/or calibration is done incorrectly and the protein read is higher than it actually is, there is a potential to over "bleed" a donor causing donor harm, such as death from untreated low protein, immune deficiency, heart and respiratory problems, bruising, insufficient blood clotting, muscle wasting and reduced energy. In short, the current personnel standard needs to be maintained."

The **Engineers and Scientists of California, IFPTE Local 20**, writes in opposition, "The digital refractometer requires more than just simply pushing a button. Critical thinking skills are required for temperature, calibration of the instrument, sample analysis, and the interpretation and action for error codes. The instructions for this instrument are not simple and make clear that this instrument is more suited to what a [clinical laboratory scientist] would do in their daily duties. This is an analytical instrument just like any other instrument in the laboratory and should be operated by an appropriately qualified professional."

AMENDMENTS:

This bill is substantially similar to AB 757 (Gomez) of 2015, to which the CDPH had concerns regarding the health and safety of plasma donors. Given the concerns the CDPH, the author should amend the bill as follows:

1) Describe the device as follows:

    a) It is used within the proximity of the donor for whom the test or examination is being conducted.

    b) It is used in accordance with the donor test management system, the quality control program, and the comprehensive quality assurance program established and maintained by the laboratory.

c) It performs clinical laboratory tests or examinations classified as waived or of moderate complexity under the federal Clinical Laboratory Improvement Amendments of 1988 (CLIA) (42 U.S.C. Sec. 263a).

d) It performs clinical laboratory tests or examinations on biological specimens that require no preparation after collection.

e) It provides clinical laboratory tests or examination results without calculation or discretionary intervention by the testing personnel.

f) Performs clinical laboratory tests or examinations without the necessity for testing personnel to perform calibration or maintenance, except resetting pursuant to the manufacturer's instructions or basic cleaning.

2) Require that the unlicensed personnel must meet the education and training requirements for unlicensed clinical laboratory personnel under BPC § 1269.

3) Provide that, notwithstanding the supervision requirements for unlicensed laboratory personnel, qualified unlicensed personal may perform the test if performed, in addition to the regular Standardized Operating Procedures required by the plasma facility's license, under standardized procedures developed and approved by the center's supervising physician and surgeon or clinical laboratory director specific to the unlicensed personnel's administration of the test.

4) Clarify that, except for the administration of the test this bill would not authorize the unlicensed personnel to perform procedures, other than the operation of the device that would require a registration, certification, or license.

5) Make necessary clarifying and conforming changes, including clarifying the license types held by the plasma centers and deleting duplicative provisions.

REGISTERED SUPPORT:

Plasma Protein Therapeutics Association (sponsor)
American Plasma Users Coalition:
Alpha-1 Foundation
GBS/CIDP Foundation International
Committee of Ten Thousand
Hemophilia Federation of America
Immune Deficiency Foundation
Jeffrey Modell Foundation
National Hemophilia Foundation
National Organization for Rare Disorders (NORD)
Patient Services Incorporated
Platelet Disorder Support Association
US Hereditary Angioedema Association
Blood Centers of California
California Life Sciences Association

CSL Behring
Grifols
Octapharma

REGISTERED OPPOSITION:

California Association for Medical Laboratory Technology
Engineers and Scientists of California, IFPTE Local 20

Analysis Prepared by: Vincent Chee / B. & P. /