STANDARDS FOR PLATELET RICH PLASMA

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Health Policies and Standards Department

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ACKNOWLEDGMENT

The Health Policy and Standards Department (HPSD) developed this Standard in collaboration with Subject Matter Experts and would like to acknowledge and thank these health professionals for their dedication toward improving quality and safety of healthcare services in the Emirate of Dubai.

Health Regulation Sector

Dubai Health Authority

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INTRODUCTION

The Health Regulation Sector (HRS) plays a key role in regulating the health sector. HRS is mandated by the Dubai Health Authority (DHA) Law No. (6) of the year (2018) with its amendments pertaining to DHA, to undertake several functions including but not limited to:

- Developing regulations, policy, standards, guidelines to improve quality and patient safety and promote the growth and development of the health sector;
- Licensure and inspection of health facilities as well as healthcare professionals and ensuring compliance to best practice;
- Managing patient complaints and assuring patient and physician rights are upheld;
- Governing the use of narcotics, controlled and semi-controlled medications;
- Strengthening health tourism and assuring ongoing growth; and
- Assuring management of health informatics, e-health and promoting innovation.

The Standard for Platelet-Rich Plasma (PRP) aims to fulfill the following overarching Dubai Health Sector Strategy 2026:

- Pioneering Human-centered health system to promote trust, safety, quality and care for patients and their families.
- Make Dubai a lighthouse for healthcare governance, integration and regulation.
- Strengthening the economic contribution of the health sector, including health tourism to support Dubai economy.

EXECUTIVE SUMMARY

The purpose of this document is to assure the provision of the highest levels of safety and quality in DHA licensed Platelet Rich Plasma. The standards have been developed to align with the evolving healthcare needs and best international practices. The standard includes several aspects which are required to provide effective, efficient, safe and high-quality services. This standard includes health facility registration, licensing requirements, facility requirements, healthcare professional requirements and elaborates on the minimum services. This includes but not limited to safety, pre-assessment, diagnostics, informed consent, equipment use and maintenance, medication management, health records management and infection control. The Standard for PRP therapy is designed to ensure safe, effective, and ethical practices in the preparation and application of PRP across medical fields such as orthopedics, sports medicine, and aesthetic medicine. PRP therapy involves the extraction of a patient's blood, the concentration of platelets through centrifugation, and re-injection into affected areas to promote tissue healing and regeneration.

DEFINITIONS

Autologous Blood: Blood drawn from the patient's body for use in the PRP procedure.

Health Facility: is a facility licensed by DHA to provide medical services to individuals, including areas of prevention, treatment, and convalescence owned and managed by natural or corporate body.

Healthcare Professional: is a qualified professional who is authorized and licensed by the Dubai Health Authority (DHA) to practice any healthcare professions as per the Unified Healthcare Professional Qualifications Requirement (PQR) or the United Arab Emirates.

Licensure: means issuing a license to operate a health facility to an individual, government, corporation, partnership, limited liability company, or other form of business operation that is legally responsible for the facility's operation.

Medical Director: A medical professional licensed from DHA and is responsible for the clinical procedures at the licensed health facility.

Patient: is any individual who receives medical attention, care, treatment or therapy by a DHA licensed healthcare professional in a DHA licensed health facility.

Platelet Rich Plasma: A therapy using blood with high levels of Platelets containing growth factors for acceleration in healing and regeneration.

ABBREVIATIONS

CT	:	Computed Tomography
DHA	:	Dubai Health Authority
DM	:	Dubai Municipality
FDA	:	Food and Drug Administration
HFG	:	Health Facility Guidelines
HRS	:	Health Regulation Sector
MRI	:	Magnetic Resonance Imaging
NSAIDs	:	Nonsteroidal Anti-Inflammatory Drugs
PPE	:	Personal Protective Equipment
PQR	:	Professional Qualification Requirements
PRP	:	Platelet Rich Plasma
UAE	:	United Arab Emirates

1. BACKGROUND

Platelet-rich plasma (PRP) is an autologous biologic product derived from whole blood, characterized by a supra-physiologic concentration of platelets suspended in a small volume of plasma. Platelets serve not only as key mediators of hemostasis but also as reservoirs of growth factors and cytokines that are instrumental in modulating inflammation, promoting angiogenesis, and facilitating tissue repair and regeneration.

The preparation of PRP involves venipuncture to collect a volume of peripheral blood, typically ranging from 10 to 60 milliliters, depending on the clinical indication and the desired volume of PRP. The collected blood is immediately processed using a centrifugation technique. Centrifugation may be performed as a single- or dual-spin protocol, designed to stratify blood components based on their specific gravity. This separation isolates red blood cells at the bottom layer, a buffy coat rich in leukocytes and platelets in the middle, and platelet-poor plasma at the top. The fraction containing concentrated platelets and plasma is carefully extracted under sterile conditions.

The final PRP product may vary in cellular composition (leukocyte-rich vs. leukocyte-poor) and platelet concentration depending on the centrifugation protocol, commercial preparation system used, and patient-specific hematologic variables. Once prepared, PRP is injected percutaneously under ultrasound or image guidance into the targeted site such as a tendon, joint, muscle, or soft tissue, or applied intraoperatively, depending on the therapeutic objective.

PRP is widely used across various specialties including orthopedics for managing tendinopathies, ligament injuries, and osteoarthritis; dermatology for chronic wounds, scars, and acne; and oral and maxillofacial surgery to enhance bone grafting and periodontal regeneration. In cosmetic and aesthetic medicine, PRP has gained popularity due to its ability to promote natural tissue regeneration without the use of synthetic materials. It is used for facial rejuvenation, where it is injected or applied after microneedling to improve skin texture, elasticity, and tone, and to reduce fine lines. PRP is also used for hair restoration in cases of androgenetic alopecia by stimulating dormant hair follicles and improving hair density. Additionally, it is applied post-aesthetic procedures such as laser treatments and chemical peels to accelerate healing and reduce downtime.

As PRP is an autologous product, it carries minimal immunogenic risk and negligible potential for disease transmission. However, clinical efficacy can be influenced by factors such as patient age, comorbidities, baseline platelet count, and the presence of systemic inflammatory conditions. Despite its biological rationale and widespread use, systematic reviews report mixed clinical outcomes, underscoring the need for standardized preparation protocols and well-designed randomized controlled trials to establish its long-term efficacy across different specialties.

2. SCOPE

2.1. Provision of PRP Services in Health Facilities, focusing on how PRP services are integrated, regulated, and delivered within licensed DHA healthcare settings, PRP shall be prepared and administered to the same patient within the same clinical encounter and is not intended for storage, pooling, or distribution.

3. PURPOSE

3.1. To assure provision of the highest levels of safety and quality in PRP services in DHA licensed health facilities.

4. APPLICABILITY

4.1. DHA licensed healthcare professionals and health facilities providing Platelet Rich Plasma services.

5. STANDARD ONE: REGISTRATION AND LICENSURE PROCEDURES

5.1. All health facilities providing Platelet Rich Plasma services shall adhere to the United Arab Emirates (UAE) Laws and Dubai regulations.

5.2. Health facilities aiming to provide PRP services shall comply with the DHA licensure and administrative procedures available on the DHA website https://www.dha.gov.ae.

6. **STANDARD TWO:** HEALTH FACILITY REQUIREMENTS

6.1. The health facility should meet the health facility requirement as per the DHA Health Facility Guidelines (HFG).

6.2. PRP services may be provided in DHA licensed health facilities, include:

6.2.1. Hospitals,

6.2.2. Day surgical centers,

6.2.3. Outpatient Polyclinics.

6.3. The health facility should install and operate equipment required for the provision of the proposed services in accordance with the manufacturer's specifications.

6.4. The health facility shall ensure easy access to the health facility and treatment areas for all patient groups.

6.5. The health facility design should provide assurance of patients and staff safety.

6.6. The health facility should have appropriate equipment and trained healthcare professionals to manage critical and emergency cases.

6.7. The health facility should develop the following policies and procedures; but not limited to:

6.7.1. PRP procedures detail such as blood draw, centrifugation, labeling, reinjection and deviation handling.

6.7.2. Patient acceptance criteria.

6.7.3. Patient assessment and admission.

6.7.4. Patient education and Informed consent.

6.7.5. Patient health record.

6.7.6. Infection control measures and hazardous waste management.

6.7.7. Incident reporting.

6.7.8. Patient privacy.

6.7.9. Medication management.

6.7.10. Emergency action plan.

6.7.11. Patient discharge/transfer.

6.8. The health facility shall have documented PRP procedures, with evidence demonstrating that all required steps of the procedure are clearly defined, implemented, and recorded such as but not limited to the following:

6.8.1. Transfer of critical/complicated cases when required.

6.8.2. Patient discharge.

6.8.3. Clinical laboratory services.

6.8.4. Equipment maintenance services.

6.8.5. Laundry services.

6.8.6. Medical waste management as per Dubai Municipality (DM) requirements.

6.8.7. Housekeeping services.

6.9. The health facility shall maintain charter of patients' rights and responsibilities posted at the entrance of the premise in two languages (Arabic and English).

6.10. The health facility should have in place a written plan for monitoring equipment for electrical and mechanical safety, with monthly visual inspections for apparent defects.

6.11. The health facility shall ensure it has in place adequate lighting and utilities, including temperature controls, water taps, medical gases, sinks and drains, lighting, electrical outlets and communications.

7. **STANDARD THREE:** HEALTHCARE PROFESSIONALS REQUIREMENTS

7.1. All physicians performing PRP therapy are required to possess a valid DHA license and must meet the standards set forth by the Professional Qualification Requirements (PQR), in accordance with applicable UAE laws and regulations

7.2. Physicians Shall be specialized in one of the following fields:

7.2.1. Dermatology,

7.2.2. Plastic Surgery,

7.2.3. Orthopedics,

7.2.4. Rheumatologist,

7.2.5. Sports Medicine,

7.2.6. Oral and Maxillofacial Surgery,

7.2.7. Other Consultants/Specialists/GP physicians must have documented evidence of training in non-surgical cosmetic procedures.

a. For more information, please refer to the DHA standards regarding Non-Surgical Cosmetic Procedures.

7.3. Physicians must possess appropriate knowledge regarding the diagnosis, treatment options, benefits, risks, and methods of PRP preparation, ensuring application to the suitable patient in the correct clinical context.

7.4. Physicians must adhere to specific standards and clinical requirements, including proper training, patient selection, aseptic technique, and post-procedure care. These specific standards ensure safe and effective treatment.

7.5. Physicians who perform PRP injections must have knowledge of the diagnosis, standard treatments, benefits, risks, contraindications, methods of preparation and delivering it to the appropriate patient in the appropriate situation.

7.6. Physicians performing PRP therapy must qualified, ideally with specific training in PRP preparation and application.

7.7. Physicians should provide PRP therapy within their scope of practice and standards of proficiency for their licensed category.

7.8. The Medical Director is responsible for granting privileges to physicians who will perform PRP therapy in accordance with their scope of practice and up to date required training and prior experience of performing PRP therapy.

7.9. Physicians shall only inject PRP into areas as per their relevant specialties.

7.10. Physicians must possess an in-depth understanding of human anatomy and physiology.

7.11. Physicians must not modify the PRP (e.g., adding other substances not approved for combination).

8. **STANDARD FOUR:** TRAINING REQUIREMENTS

8.1. The health facility shall define and maintain documented competency requirements for healthcare personnel performing phlebotomy, aseptic techniques, and handling PRP.

8.2. Physicians must complete an accredited PRP-specific training program that provides comprehensive instruction on blood collection methods, centrifugation processes, injection techniques, and patient management, including patient selection and contraindications, safety considerations, risks, and informed consent, as well as the recognition and management of complications, side effects, and proper documentation.

8.3. It's strongly recommended that physicians must complete hands-on accredited PRP training courses that usually covers:

8.3.1. Blood draw and centrifugation techniques.

8.3.2. PRP injection protocols.

8.3.3. Sterile technique and handling of biologics.

8.4. Training provided by the manufacturer of the equipment is mandatory, and documentation of this training must be maintained.

8.4.1. Periodic training should be maintained when procedures or devices change.

9. **STANDARD FIVE:** PROCEUDRE REQUIREMENT

9.1. The procedure requires a healthcare professional and assistant to aid in preparation of a PRP graft, maintenance of aseptic technique and saving images on ultrasound (if applicable).

9.2. Pre-procedure considerations:

9.2.1. Prior to initiating PRP therapy, physicians must perform a thorough evaluation of the patient's medical history, including prior treatments, surgeries, and relevant health conditions.

9.2.2. Patients presenting with any of the following conditions shall be considered ineligible for PRP therapy, as these represent contraindications, including but are not limited to:

a. Blood disorders (e.g., thrombocytopenia).

b. Active infections at the treatment site.

c. Use of anticoagulant medications.

d. Cancer, particularly hematologic malignancies.

e. Pregnant or breastfeeding patients without physician's approval.

9.2.3. Confirm that the patient's condition aligns with established indications for PRP therapy, such as osteoarthritis, tendon injuries, or skin rejuvenation.

9.2.4. Provide the patient with comprehensive information regarding the PRP procedure, including its benefits, risks, potential outcomes, and alternative treatment options. The patient should acknowledge that PRP therapy is an experimental procedure with variable outcomes, and informed written consent must be obtained prior to treatment.

9.2.5. Clear pre-procedure instructions must be provided to patients, including recommendations to avoid medications that may impact platelet function (e.g., NSAIDs) and any necessary dietary restrictions, such as fasting before the procedure.

9.2.6. Additional contraindications are consistent use of Corticosteroid injections at treatment site within (one) month, Systemic use of corticosteroids within 2

weeks, Tobacco use, Recent fever or illness, Cancer- especially hematopoietic or of bone, HGB < 10 g/dl , Platelet count < 105/ul.

9.2.7. Specific indication correlated with physical exam and confirmed with imaging studies such as x-ray, ultrasound, MRI, or CT scan prior to treatment.

9.2.8. Relative Contraindications to the procedure such as critical thrombocytopenia, hyperfibrinogenemia, hemodynamic instability (collapse), sepsis, acute and chronic infections, chronic liver disease and anti-coagulation therapy (warfarin, heparin etc.) are reviewed as applicable prior to initiation, are discussed with the patients.

9.3. Physicians must obtain informed consent from patients by clearly explaining the expected outcomes, potential risks and benefits, the lack of guaranteed results, the expected course of treatment, required follow-up, and acceptable activities.

9.4. All PRP treatments must be documented in the patient's medical record, including:

9.4.1. Patient consent.

9.4.2. Details of the blood draw and PRP preparation process.

9.4.3. Site of injection.

9.4.4. Post-treatment instructions and follow-up plan.

9.4.5. kit/consumable lot numbers, expiry, centrifuge settings and operator initials.

9.5. The PRP procedure including blood drawing, centrifugation and administering the final product must be done in the same room where the patient is present.

9.6. A trained Nurse can collect blood and perform centrifugation procedure under physician supervision.

9.6.1. Only a trained physician will inject the PRP product into the patient.

9.7. PRP should be obtained using a separating device designed for autologous blood.

9.8. Special attention should be paid to the sterility of the product; the sterility of technique and specialized sterile kits should be used.

9.9. Ensure the use of a closed system that prevents exposure of blood and cellular components to ambient room air and permits only minimal manipulation of the tissue. The pooling, storage, or transportation of PRP is strictly prohibited

9.10. Peri PRP-Therapy Procedure:

9.10.1. All licensed healthcare professionals must wear their appropriate PPE to ensure the prevention of cross contamination during the procedure. Physicians and their assistants must ensure that they follow standard precautions and have training and skills in aseptic techniques.

9.10.2. Special attention must be paid to the sterility of the product, sterility/aseptic technique and specialized sterile kits should be used.

9.10.3. Movement of the plasma and associated additives must be minimal and be protected by labelling with the patient's full name and the Medical Records Number. Must be cross checked by minimum two individuals with their initials /signatures on the document, labelling should also include additional identifiers

to ensure traceability, such as date and time of blood draw, kit or consumable lot number, and operator initials, as applicable.

9.10.4. Guidance technology appropriate to the body area treated may be used to ensure safe and appropriate injections i.e. CT, fluoroscopic, ultrasound, etc as per specialty.

9.10.5. Sterile single use needles, syringes and sterile gloves must be used with appropriate handling and disposal.

9.10.6. Prepare the site with appropriate antiseptic solution such as Betadine, Chlorhexidine specifically in PRP use in Musculoskeletal System.

9.10.7. To avoid unintentional activation of platelets, use large bore needles (>22) to draw the blood and re-inject PRP.

9.10.8. The patient must remain in the room whilst the blood product, once withdrawn, undergoes the centrifuge procedure prior to reinjection of the final blood product. A minimal timeframe, preferable 15 minutes to 30 minutes should be observed between drawing the patient's blood, obtaining the PRP and injecting the PRP product into the patient.

9.10.9. Recognition, management and monitoring of any potential complications and Pain Management.

9.11. Post PRP-Therapy Procedure:

9.11.1. Patients must be made to rest immediately after the procedure. Monitor for post-procedure complications. Assist patient if unable to ambulate post procedure specifically if related to PRP orthopedic procedures.

9.11.2. Patients must be provided with comprehensive health education and applicable exercise regimes especially related to PRP orthopedic procedures.

9.11.3. Patients must be informed on how to handle the area treated post procedure.

9.11.4. All patients must be informed and educated about the signs and symptoms of possible complications.

9.11.5. A follow up questionnaire is recommended to be used to monitor effects and achieve continuous improvement for patient outcomes.

9.11.6. All licensed Healthcare Professionals providing PRP therapy must document date, pre/post-procedure diagnosis, procedure title, performing physician w/wo assistants, brief indication of procedure, description of PRP preparation, description of procedure including guidance, and instruments.

9.11.7. Necessary follow-up and post procedure appointments with treating physician must be scheduled as appropriate.

9.12. Each patient's sample should be labelled with name and patient's file number.

10. STANDARD SIX: PROCEDURE ROOM REQUIREMENT

10.1. A clinical chair/ bed must be available with a reclining, multi-positioning back rest depending on the body area for the PRP therapy.

10.2. The procedure room must maintain a clean and sterile environment to minimize the risk of infection.

10.2.1. Regular cleaning protocols should be established and followed.

10.2.2. Appropriate infection control measures must be in place, including the availability of hand sanitizers, surgical masks, gloves, and sterilized instruments.

10.3. The room must provide sufficient space to accommodate the healthcare team, equipment, and the patient comfortably, ensuring an efficient workflow.

10.4. Patient privacy and dignity must be respected and maintained at all times with appropriate curtains, shields or frosted glass protection.

10.5. The procedure room must be equipped with emergency medical equipment, including a crash cart with resuscitation supplies, oxygen, and an automated external defibrillator (AED).

10.5.1. A crash cart is a vital component of patient safety and emergency preparedness in the procedure room, ensuring that healthcare professionals can respond promptly and effectively to any unforeseen complications.

10.6. Essential equipment must be readily available, including:

a. Centrifuge for PRP preparation.

b. Ultrasound machine (if used for guidance).

c. Necessary injection supplies (e.g., syringes, needles, alcohol swabs).

10.7. The clinic couch, trolley, and surfaces must be made up of material that can be appropriately cleaned and disinfected in between patients.

10.8. The room should be designed to ensure patient comfort, including an adjustable examination table, adequate lighting, and a quiet environment.

10.8.1. Dedicated handwashing facilities must be present in each procedure room providing PRP therapy.

10.8.2. Sharps and clinical waste disposal must be provided within the procedure room designated for the PRP Therapy.

10.9. A written cleaning schedule with documented records.

11. STANDARD SEVEN: INFECTION CONTROL

11.1. Special infection control measures may include but not limited to:

11.1.1. Sterile single use needles and syringes should be used with appropriate handling and disposal.

11.1.2. Aseptic conditions in the area that the procedure is conducted.

11.1.3. Disposable gloves must be worn at all times during the treatment and the cleaning process.

11.1.4. All disposable items used during the treatment must be discarded in a specialized medical waste bag.

11.1.5. Hands must be scrubbed between treatments.

11.2. Ensure all healthcare professionals perform hand hygiene before and after patient contact, before medication administration, and after contact with any potentially contaminated surfaces or equipment.

11.3. Use alcohol-based hand sanitizers or wash hands with soap and water for at least 20 seconds.

11.4. Use appropriate PPE (gloves, masks, gowns, etc.) when handling patients, administering medications, or performing procedures that may expose staff to bodily fluids or infection risks.

11.4.1. Ensure proper disposal of used PPE in designated containers.

11.5. Maintain a clean environment in all patient care areas by regularly disinfecting high-touch surfaces (e.g., door handles, medication trolleys, and equipment).

11.5.1. Use hospital-grade disinfectants to clean rooms, especially after patient discharge or transfer.

11.6. Follow aseptic techniques when preparing and administering medications to prevent contamination.

11.6.1. Store medications in a clean and dry environment, adhering to temperature and humidity standard to prevent spoilage and contamination.

11.7. Ensure proper disposal of medical waste, including sharps, biohazardous materials, and used PPE, in designated biohazard containers.

11.8. Ensure healthcare professionals involved in the PRP are up to date with immunizations, including vaccinations for seasonal flu and other relevant infections.

11.9. Monitor staff for signs of illness and enforce sick leave policies for those showing symptoms of infectious diseases.

11.10. Educate patients on personal hygiene practices such as hand washing, respiratory hygiene (coughing into a tissue or elbow), and proper disposal of tissues.

11.11. Encourage patients to maintain good hygiene to reduce the risk of infection transmission within the facility.

11.12. Develop a clear protocol for managing patients who develop infections during their treatment, including appropriate antibiotic use and infection-specific precautions.

11.13. Implement regular monitoring and reporting of infection rates within the PRP.

11.14. Ensure proper documentation and investigation of adverse events, such as suspected PRP-related infections.

12. **STANDARD EIGHT:** EQUIPMENT AND SOFTWARE REQUIREMENTS

12.1. All equipment used for blood draw, centrifugation, and injection must be FDA-approved and certified by the relevant regulatory authority (MOHAP).

12.2. Devices must be FDA-cleared for PRP preparation and FDA-cleared centrifuge systems (e.g., EmCyte, Arthrex, Eclipse).

12.3. The software for capturing, storing, retrieving, and analyzing patient data must comply with DHA-specified regulations and ensure confidentiality in line with data protection laws.

12.4. Maintenance, calibration or verification requirements shall be maintained for equipment used in PRP preparation.

12.5. Refer to **(Appendix 1)** for list of Mandatory equipment's during PRP.

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APPENDIX

APPENDIX 1: LIST OF MANDATORY EQUIPMENTS DURING PRP

Equipment	Uses of the Equipment
Centrifuge	A specialized centrifuge designed for processing blood to separate the components and concentrate platelets for PRP preparation.
Blood Collection Tubes	Sterile tubes specifically designed for blood collection, often containing anticoagulants to prevent clotting during processing.
Syringes and Needles	Sterile syringes and needles for blood collection and subsequent injection of the PRP into the treatment area.
Injection Supplies	Additional supplies such as alcohol swabs, gauze, and bandages for preparing the injection site and post-injection care.
Ultrasound Machine (if applicable)	An ultrasound device may be used for guidance during PRP injections, particularly in joint or deeper tissue applications. An Ultrasound imaging allows for precise localization of the ovaries, ensuring accurate injection of PRP into the targeted ovarian tissue.
Vacuum Blood Collection System	A system that allows for the safe and efficient collection of blood samples, often including a variety of needle sizes.
Heating or Cooling Devices (if applicable)	Devices to maintain the optimal temperature of blood samples during processing.
Sterilization Equipment	Equipment for sterilizing reusable instruments and ensuring a sterile environment.
Crash Cart	An emergency cart stocked with necessary supplies and medications to manage any adverse reactions during the procedure.
Patient Monitoring Devices	Equipment for monitoring the patient's vital signs during the procedure, ensuring their safety and comfort.