



COUNTY OF SANTA CLARA
Health System

Custody Health Services

Administration

150 W. Hedding Street
San Jose, CA 95110

Tel (408) 808-3648

Fax (408) 808-3633

DATE: September 9, 2022

TO: Board of Supervisors

Jeffrey V. Smith, M.D. J.D., County Executive

FROM: Dr. Eureka Daye, Director Custody Health and Custody Behavioral Health Services

SUBJECT: Off-Agenda Report on Dialysis Machine at Elmwood Correctional Facility Program

This Off-Agenda Report is in response to Supervisor Lee's inquiry on the feasibility of adding a dialysis service onsite at the Elmwood Facility. This inquiry was prompted from discussions with Custody Health Services (CHS) providers during a tour of the Elmwood Facility by Supervisor Lee.

Dialysis Services

Currently, carceral patients with end-stage kidney disease who require hemodialysis care when housed at either Main Jail or Elmwood are transported offsite to a tertiary-specialty care unit at Valley Medical Center (VMC) to receive dialysis treatment up to three times a week for three to five hours at a time. The frequency of dialysis is increased for patients, if needed, to manage their disease as it progresses, and each dialysis session requires the assistance of trained professional staff with specific training in nephrology/hemodialysis. Dialysis is a medical treatment that replaces kidney function. It filters waste products, like excess salt, from the body before they reach toxic levels, and it replaces important fluids needed to stay healthy. It works by pumping a patient's blood through an external filter then back into the body.

Dialysis patients are at a high risk for infection because the process of hemodialysis requires frequent use of catheters or insertion of needles to access the bloodstream.

Dialysis patients have weakened immune systems, which increase their risk for infection, and may otherwise require frequent hospitalizations and surgery if they acquire an infection.

The proximity and responsiveness to tertiary care is critical since complications of end-stage renal disease (ESRD) and side-effects of dialysis, such as breathlessness, fatigue, low blood pressure and oedema, are life-threatening and must be dealt with promptly if complications occur during dialysis.

Delivering dialysis care in a carceral environment is inherently complex and requires up to

and including the below:

- Administering dialysis treatment compliance with public health, state, and federal regulatory agents (dialysis units are surveyed to determine if they follow both state and federal guidelines by each state's own surveying agency).
- On-site dialysis would require new construction that meets federal guidelines to include:
 - Sufficient space to enable the appropriate conduct of the required activities for patient treatment.
 - An ancillary-purifying room for provision of dialysis water, a disposal room for handling of syringes and wastes after the treatment, a washing room for cleaning medical supplies before the sterilization, a changing room, a nurse room, and a nurse station.
 - A laryngoscope, ambu-bag (with a face mask), oxygen and oxygen supplies, a suction tube, an ECG monitor and a defibrillator for emergency treatment.
 - Reliable power system/generator for continued dialysis during a power failure. An emergency power supply system is essential for units because patients may be put at risk if a dialysis machine stops suddenly, as during the massive power outage.
- Specialized staff certified to deliver dialysis:
 - Staff must operate and furnish services in compliance with applicable federal, state, and local laws and regulations pertaining to licensure and any other relevant health and safety requirements.
 - Over-seeing physician with overall responsibility for the service. Standards for the physician include dialysis specialty training with a minimum of one year's training in the care of patients with end-stage renal disease.
 - Surgeon to perform the vascular access procedures with a minimum of one year's training or experience in vascular surgery.
 - Nurses in charge of dialysis with a minimum of two years of dialysis experience.
- Access to patient's vascular systems such as fistulas, grafts, and venous catheters:
 - A fistula access is made by joining an artery to a vein under your skin to make a bigger blood vessel.
 - If blood vessels are not adequate for a fistula, a graft which is a soft plastic tube is used to join an artery and a vein together under your skin.
- Real-time laboratory capability of performing, at a minimum, the following determinations:

- Complete blood count, blood urea nitrogen, creatinine, platelet count, blood typing and cross matching, blood gas analysis, blood pH, serum glucose, electrolytes, coagulation tests, spinal fluid examination and urinalysis.
 - Tests, including of anemia, the mineral level, the liver function, the lipid panel, and viruses.
 - X-ray and ECG tests for patient's hemodialysis adequacy evaluation.
- Infection prevention in dialysis patients:
 - Separate dialysis machines for patients with hepatitis B virus infection.
 - Sanitary environment to minimize the transmission of infectious agents within and between the dialysis unit.
 - System of infection control precautions for body substance isolation (BSI) to include blood, body fluids, secretions and excretions, non-intact skin, and mucous membranes which may contain transmissible infectious agents.
 - Infection control precautions specifically designed to prevent transmission of bloodborne viruses and pathogenic bacteria among patients.
 - Routine serologic testing for hepatitis B virus infections.

Custody Health Services has had a limited number of dialysis patients at any given to justify the above standards and regulatory requirements. There was a total number of 15 patients that received offsite tertiary dialysis care between January 2018 and August 2022. While onsite services would certainly cut down on transportation costs and remove potential impediments to outside patient care, the number of patients requiring dialysis remains low and not feasible to maintain and sustain this onsite specialty healthcare service.