Medical Legal Aspects of Kidney Failure Patients Treating Continuous Ambulatory Peritoneal Dialysis (CAPD) in Indonesia

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Abstract. Continuous Ambulatory Peritoneal Dialysis (CAPD) is an alternative kidney replacement therapy besides Hemodialysis (HD). CAPD can only perform on stage 5 chronic kidney disease (CKD) patients who have received HD training also to be able to carry out CAPD. In Indonesia, CAPD patients only reach 2% of all PKG 5 patients undergoing routine dialysis. The CAPD discontinuation rate with various causes, including death, is still high (86%). The medico-legal aspect in patients with kidney failure covers the patient's right to get compensation for losses suffered due to doctor negligence during the CAPD procedure. Medical negligence can occur during a Tenckhoff catheter (intraperitoneal) installation, training that is not optimal, distribution of CAPD fluid, monitoring, and follow-up for peritonitis treatment. The lawsuit suing the medical practice is a breach of contract according to article 1239 of the Civil Code, or according to article 1265 of the Civil Code, is an act against the law that causes harm. The existence of criminal liability in the form of actions that meet the elements of a criminal act, such as negligence that causes death to a patient, can be subject to Article 359 of the Criminal Code.

Keywords: medico legal aspects; capd; renal failure patients

1 Introduction

Kidneys are significant organs that capability to keep up with blood structure by forestalling the collection of waste and controlling liquid equilibrium in the body, keeping up with stable degrees of electrolytes like sodium, potassium, and phosphate, and delivering chemicals and compounds that assist in controlling blood with compelling, making red platelets and keeping up with bones. remain solid[1]. Ongoing kidney illness is a condition portrayed by an irreversible decrease in kidney capability to a certain extent that requires long-lasting kidney substitution treatment, as dialysis or kidney transplantation[2].

Management of patients with chronic renal failure in addition to diet and medical therapy also requires renal replacement therapy which is the only option to maintain existing kidney function and to prolong the patient's life[3]. Kidney replacement therapy that is usually done is kidney transplantation, peritoneal dialysis, and hemodialysis[4].

Peritoneal Dialysis is a dialysis technique involving the patient's peritoneum in the midsection as a penetrable layer through which liquids and solutes (electrolytes, urea, glucose, egg whites, and other little particles) are traded from the blood. As a vehicle of trade, dialysate liquid is utilized which is embedded and eliminated through a cylinder put in the midsection occasionally for one day[5]. Peritoneal dialysis can be performed physically (Nonstop

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Wandering Peritoneal Dialysis/CAPD) or with the assistance of a cycler machine (Robotization Peritoneal Dialysis/APD)[6].

Of the two types of peritoneal dialysis available, only CAPD is available in Indonesia (Lydia, 2020). As renal replacement therapy, CAPD is another alternative to HD, which can be used alone or interchangeably (complimentary). In some countries such as Mexico and Hong Kong, more than 80% of patients with stage 5 CKD use CAPD. Because the procedure is simple, CAPD allows it to be expanded rapidly. This procedure has limitations, notably infectious complications (currently with a small incidence), flow resistance, and progressively decreasing clearance.

Starting around 1985 up to this point, the utilization of CAPD in Indonesia has not been extremely well known. Practically all patients in Indonesia go through HD and just 2% use CAPD. The Public authority of Indonesia's arrangement that directs the execution of dialysis administrations in medical clinics is the Guideline of the Pastor of Wellbeing of the Republic of Indonesia (Permenkes RI) No. 812/PER/VII/2010 concerning the execution of dialysis. Moreover, the execution of CAPD is upheld and helped by the public authority with Regulation no. 24 of 2011 which directs the Federal retirement aide Overseeing Body (BPJS).

It is estimated that more than 272,000 patients receive CAPD therapy in the world, this represents an estimated 11% of the world's dialysis population (Li et al., 2016). While the data in Hong Kong is more than 80% of patients with end-stage renal failure undergo CAPD. End-stage renal failure patients undergoing CAPD are also widely practiced in New Zealand, Korea, and Singapore (Yuliyanti, et al., 2015). In a national study, more than 4,000 patients (75%) were using hemodialysis and only 20% to 25% were using CAPD (Schatell et al., 2012).

Based on data from the Indonesian Renal Registry (IRR) 2018, the Indonesian population in 2010 who underwent CAPD was 1012 patients, and it still increasing every year. There were 2105 patients who had CAPD installed In 2018 (IRR, 2018). In a national study more than 4,000 patients (75%) were using hemodialysis and only 20% to 25% were using CAPD (Schatell et al., 2012). Patients who undergo CAPD therapy in the first 2-3 weeks of changing absorbent dressings / dressings should not be too frequent, just once a week excepted if there is blood and dirt. Various of efforts need to considered in preventing infection include exite-site care, fluid replacement procedures, changing transfer sets periodically, preventing constipation, and carrying out other medical procedures[3].

The CAPD cessation rate with different causes including passing is still very high (86%). The length of existence with CAPD to death shifts broadly from under a half year to over 10 years. 43 patients or 11% of patients changed the strategy from CAPD to HD with the most reasons for access issues and film disappointment. Roughly 20% of patients are re-confessed to the clinic because of disease, and the effect of contamination in the dialysis populace is more noteworthy than that of everybody[7].

Dialysis-related diseases (vascular access or peritonitis are the main source (24%) of all contaminations, and CAPD treatment is indivisible from inconveniences that might happen, in particular disease. One of them is peritonitis, which is a disease of the skin around the site of section catheter because of the passage of microbes through the catheter. Peritonitis is a sickness that frequently turns into a confusion and has turned into a significant illness that causes passing in patients with CAPD treatment[8]. The frequency of peritonitis affects patients getting teraphy. CAPD, one of which is the speed increase of fibrosis in the peritoneum. Fibrosis of the peritoneum will cause changes in the porousness of the peritoneal film which at last makes specialized disappointment in CAPD treatment due deficient evacuation of poisons[9] . Peritonitis in peritoneal dialysis is the primary driver specialized disappointment and dreariness itonitis is a main source of death in 16% of passings in peritoneal dialysis patients. Peritonitis

represents 30% of treatment disappointments and 15% to 35% of medical clinic affirmations.

Clinical carelessness can happen during the establishment of a Tenckhoff catheter (intraperitoneal), preparing that isn't ideal, dissemination of CAPD liquid, checking, and follow-up for peritonitis treatment. The connection between the clinic specialist patient depends on a remedial relationship which brings forth the freedoms and commitments of the gatherings. Article 46 of Regulation Number 44 of 2009 concerning Emergency clinics can be deciphered that medical clinics can be answerable for the carelessness of wellbeing laborers, medical clinics can be liable for misfortunes coming about because of carelessness, clinics are not dependable assuming it is demonstrated that there is no carelessness by wellbeing laborers Medical clinics are not answerable for the purposeful activities of wellbeing laborers that actually hurt somebody, Emergency clinics are not liable for carelessness because of clinical activities completed by clinical staff who are not representatives, Clinical Specialists can be answerable for misfortunes brought about by carelessness.

2 Result and Discussion

Continuous Ambulatory Peritoneal Dialysis (CAPD)

Continuous Ambulatory Peritoneal Dialysis (CAPD) is an alternative kidney replacement therapy besides Hemodialysis (HD). CAPD can only be performed on stage 5 chronic kidney disease (CKD) patients who have received HD training and are judged to be able to carry out CAPD. In Indonesia, CAPD patients only reach 2% of all PKG 5 patients undergoing routine dialysis. The CAPD discontinuation rate with various causes including death is still quite high (86%). Medical negligence can occur during the installation of a Tenckhoff catheter (intraperitoneal), training that is not optimal, distribution of CAPD fluid, monitoring, and follow-up for peritonitis treatment.

CAPD is a renal substitution treatment that involves the patient's own peritoneum as a semipermeable layer. CAPD is done freely by patients both at home and outside the home. For the most part without utilizing a machine. In specific conditions it tends to be done consequently (Computerized Peritoneal Dialysis/APD) utilizing unique hardware.

CAPD requirements (must be met)

a. Patients with CKD stage 5 who have been analyzed by a Specialist Kidney Hypertension (KGH) or Internist who has gone to HD preparing and is decided to have the option to complete CAPD.
b. The patient has gotten serious clarification and preparing with respect to the CAPD strategy and its inconveniences.
c. CAPD should be possible previously or after HD activity.

CAPD Criteria

a. Independent patient: can play out all CAPD techniques all alone and has no actual constraints.
b. Understand the standards of asepsis and antisepsis and have the option to appropriately apply them.
c. Patients live in a spotless and sound climate.
d. Patients can undoubtedly discuss straightforwardly with specialists or CAPD medical attendants in the dialysis unit (through phone, cellphone, and so on.)

CAPD procedure

a. Insertion of a Tenckhoff catheter (intraperitoneal) is carried out by a trained Dr Surgeon or KGH together with a CAPD nurse.
b. Replacement of CAPD fluid is carried out 3-4 times a day or more according to the patient's weight. This process is carried out continuously on a regular basis.
c. Pay attention to the exit-site catheter, treat and prevent infection.
d. The patient records in the notebook:
    - The amount of fluid in and out.
    - A problem occurred in this procedure.
    - Pay attention to the fluid that comes out in terms of clarity, abnormalities in the dialysate and signs of infection.
e. Consultation with the SpPD KGH doctor every 1-2 months by showing a notebook, relevant laboratory results and to obtain a prescription for fluids and medicines needed.
f. Every 6 months the transfer set is replaced by a trained CAPD nurse.

CAPD Equipment/Medicine

a. Initial package:
    - Tenckhoff catheter and equipment for insertion surgery
    - CAPD fluid
b. Routine package
    - CAPD fluids 1.5%, 2.3%, 2.5% and 4.25% according to patient needs..
    - Minicap antiseptic and antiseptic solution.
c. Tansfer set
d. Transfer sets should be replaced every 6 months.
e. Drugs that are routinely given to CKD patients to prevent and treat cardiovascular complications, bone complications and possible infections

Monitoring & evaluation

a. Reports are sent periodically by the dialysis unit to the National Registration System Center.
b. Monitors carried out by trained nurses include:
    - Regular home visits to find out the general condition of the patient, the surrounding environment, and provide advice or training on ways to prevent and overcome complications
    - Help overcome acute complications that cannot be overcome by the patient alone.
    - The visit report is given to the KGH doctor for follow-up.
c. If there is peritonitis or fluid inflow/outflow obstruction that cannot be resolved on its own, the patient should return to the dialysis unit as soon as possible.
d. The Tenckhoff catheter is removed if there is peritonitis that cannot be treated with adequate antibiotics within 2 weeks, or there is a fungal infection, or the peritoneal membrane is no longer effective. If the peritonitis infection has healed, the Tenckhoff catheter can be inserted again in as little as 1 month.

CAPD Constraints

CAPD fluid used in one treatment is approximately 2 liters that is inserted into the abdominal cavity, but the distribution of this fluid is also still a problem, especially in remote areas because the fluid must be sent directly to the patient's home, so CAPD services are

currently still available at the hospital. big cities, such as Jakarta, Bandung, and Bali.

Medico-Legal Aspect In Patients With Kidney Failure

Doctors and patients are two related legal subjects in medical law. Both form both a medical relationship and a legal relationship. Medical and legal relationships between doctors and patients are relationships whose objects are health care in general and health services in particular. Often when there is a relationship between a doctor and a patient, both in terms of medical and legal relations, the patient generally does not understand how the doctor's responsibility should be when the doctor in carrying out his practice or medical service defaults or makes a mistake, either intentionally or unintentionally, to the patient, causing harm to the patient.

The example of helpful connections in clinics, can be as quiet emergency clinic connections; example of patient-specialist relationship; Assuming that the example of the remedial relationship is between the patient and the clinic, then, at that point, the place of the clinic is as the party that gives accomplishments, while the specialist just capabilities as a worker (subordinate to the medical clinic) responsible for completing the clinic's commitments. As such, the place of the medical clinic is as the head and the specialist as the specialist. While the patient's position is as the party who is obliged to give contra-accomplishment.

This sort of relationship as a rule applies to government-claimed clinics whose specialists are settled up on routinely and completely, not in view of the quantity of patients treated or the quality and amount of clinical activities performed by specialists. With the presence of this helpful relationship design (patient-medical clinic relationship), then in the event that there is a misfortune endured by the patient because of the carelessness of the specialist (wellbeing laborer), then for this situation the clinic can be considered capable.

The example of the patient-specialist relationship happens when the patient is skilled and hospitalized where the specialists work not as representatives, but rather as accomplices (going to doctor). This example puts specialists and clinics on neutral ground. Specialists as gatherings are obliged to give accomplishments, while the capability of clinics is just as a spot that gives offices (beds, eating and drinking, medical attendants/birthing specialists as well as clinical and non-clinical offices). The idea is as though the clinic rents offices to specialists need it. This example is generally embraced by confidential emergency clinics where specialists put their pay in view of the quantity of patients, amount and nature of clinical activities performed. On the off chance that in one month no quiet is dealt with, that month the specialist creates nothing.

With the patient-specialist relationship design, on the off chance that there is carelessness (wellbeing faculty) that makes hurt the patient, the specialist (wellbeing laborer) is dependable, and not the obligation of the emergency clinic. There are a few sorts of examples that foster corresponding to the functioning connection between wellbeing laborers (specialists) and clinics, including: specialists as representatives (workers); specialist as accomplice (going to doctor); the specialist as a self employed entity. Every one of these examples of work will decide if the emergency clinic ought to be dependable or not for the misfortunes brought about by the specialist's slip-ups and the degree of obligation/allegation that should be borne. With respect to specialist as a worker and the specialist as a going to doctor, it is adequate to specify prior. As referenced above with respect to the example of helpful connections, in the event that the specialist's functioning relationship is a worker, assuming that there is a misfortune to the patient because of the specialist's activities, the clinic is capable. Moreover, on the off chance that the specialist is a going to doctor, in the event that there is carelessness of the specialist (wellbeing laborer) truly hurting the patient, then, at that point, the specialist (wellbeing specialist) is capable, and not the obligation of the emergency clinic. To make sense of the specialist as a self

employed entity, the accompanying delineation is given.

An operation is a medical procedure that requires a team with various expertise backgrounds, consisting of: operators and anesthesiologists.

The team can be a single team led by a surgeon who will act as captain of the ship where the anesthesiologist is included or it can be two teams consisting of the operator team (consisting of surgeons and assistants and nurses) and the anesthesia team (consisting of experts). anesthesiologist and nurse anesthetist) with a note that each team has its own leader who will act as captain of the ship in his team.

The medico-lawful perspective in patients with kidney disappointment covers the patient's on the whole correct to get pay for the misfortunes experienced because of the carelessness of the specialist during the CAPD methodology. The claim against clinical work on as indicated by article 1239 of the Common Code is a break of agreement or as per article 1265 of the Common Code is a demonstration illegal that causes hurt. The presence of criminal obligation as activities that meet the components of a crook act, for example, carelessness that makes demise a patient can be likely to Article 359 of the Lawbreaker Code.

Table 1. Number of Causes to stop CAPD.

NO	Caused to Stop CAPD	Total
1	Death	336
2	Switch to Hemodialysis	43
3	Switch to Kidney Transplantation	4
4	Drop out (unknown reasons > 3 bulan)	9

3 Conclusion

The medico-lawful angle in patients with kidney disappointment covers the patient's all in all correct to get remuneration for the misfortunes experienced because of the carelessness of the specialist during the CAPD methodology. The claim against clinical work on as per article 1239 of the Common Code is a break of agreement or as indicated by article 1265 of the Common Code is a demonstration illegal that causes hurt. The presence of criminal responsibility as activities that meet the components of a lawbreaker act, for example, carelessness that makes demise a patient can be liable to Article 359 of the Crook Code.

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