INTRODUCTION
The incidence and prevalence of chronic kidney disease (CKD) has increased worldwide and in Indonesia. There were about 53,940 people with stage 5 CKD based on data from the Indonesian Renal Registry (IRR) in 2018. Incidence crude rate is 251 per million population and prevalence crude rate is 499 per million population for the entire population. The prevalence of CKD has almost doubled in 5 years, from 2% in 2013 to 3.8% in 2018. Hemodialysis (HD) is a renal replacement therapy modality that is in great demand by the public compared to the other two modalities, namely peritoneal dialysis and kidney grafts. In 2018, there was a consistent increase in the number of new patients and active HD patients. Active patients is the total number of patients (either new or old patients) who are still undergoing routine HD. The number of new patients has doubled compared to 2017. This also resulted in a sharp increase in the number of active patients compared to the previous year.

Hemodialysis Patient Compliance
Hemodialysis is a stressful type of therapy because of its unique and complex dialysis regimen. HD patients are required to comply with various medical advice that may interfere with their normal routine. In addition to having HD sessions twice a week, the patient takes a lot of medication, adheres to a diet and strictly limits fluid intake. Adherence to diet and fluid restriction is fundamental in the treatment of renal failure and plays an important role in determining the success of HD therapy. Adhering to the recommended dietary and fluid restrictions is one of the most important issues in the treatment of CKD patients. Adherence to treatment has a significant effect on health maintenance, quality of life, and patient survival.

Non-adherence is a common problem in HD patients. Non-compliance can be found in all aspects but fluid restriction is the most difficult aspect for most patients. Previous studies have shown that although patients are aware of the complications, about 80% of patients refuse to comply with fluid restrictions.

Non-compliance with fluid restriction can lead to weight gain between large dialysis periods. Weight gain between dialysis times (Interdialytic Weight Gain / IDWG) is an increase in fluid volume manifested by weight gain as an indicator to determine the amount of fluid intake during the period between dialysis time and patient compliance with fluid management in HD patients. Weight gain between dialysis periods should be less than 4.0–4.5% of dry weight. Dry weight is the weight at which the patient feels comfortable, and there are no clinical signs of fluid retention. In fact, many patients have a high IDWG and some even have an IDWG of 10–20% of dry weight. The clinical impact of excessive IDWG is evident from the large number of patients who come to the dialysis unit with obvious signs of fluid overload such as swelling of the legs, swelling of the eyes, ascites, while some even require emergency dialysis due to acute pulmonary edema. Increased IDWG will lead to chronic fluid overload, which can lead to hypertension, increased cardiovascular morbidity such as acute pulmonary edema, congestive heart failure and death. It can also lead to additional dialysis sessions with the consequences of decreased quality of life and increased costs.

Thirst in Hemodialysis Patients
Thirst is a subjective perception that gives humans and animals the urge to drink fluids. It is part of the components of the body’s fluid homeostatic defense mechanism and is ultimately essential for survival. This urge to drink fluids can be elicited by a variety of reasons, including habitual, cultural, and psychogenic factors in response to fluid deprivation, extracellular fluid hypertonicity, or increased circulating concentrations of dipsogenic hormones. Thirst can be experienced and expressed by patients in a
variety of ways. This thirst can be so strong that the urge to drink becomes unbearable and causes distress. Thirst is a major obstacle to effective management of IDWG, and is a source of non-adherence to fluid intake restriction which is very common in HD patients13.

Thirst also causes distress in HD patients and their families. Distress is defined as suffering and discomfort caused by a symptom. Distress caused by thirst in HD patients occurs because the patient is prescribed fluid restriction but also experiences a persistent sensation of thirst. In HD patients there is an increase in plasma osmolality due to sodium retention during the period between dialysis which stimulates thirst. Another possible trigger is the combination of hypotension and hypovolemia immediately after HD10.

Thirst also frustrates routine HD patients. On the one hand they know that they have to limit their fluid intake and on the other they suffer from thirst. This causes guilt, anxiety and discomfort. The quality of life of HD patients is greatly affected because they experience distress because they continue to feel thirsty and are not allowed to drink fluids. High thirst was associated with a significantly lower quality of life. Thus, understanding the sensation of thirst in HD patients can help determine the best way to prevent and treat this symptom14.

The Role of the Primary Service Physician
As kidney disease progresses, more and more patients are undergoing HD. Patients undergoing HD often feel that the nephrologist is the only doctor who has to treat all their medical problems. There are many clinical problems in patients with CKD during the pre-dialysis period and the period of renal replacement therapy. These medical problems can be related to CKD, but not always. Therefore, nephrologists often provide primary care or non-kidney-related medical care to pre-dialysis patients or patients undergoing chronic HD, since these patients frequently visit the centers of these nephrologists. Patients also often feel that the nephrologist must treat even their acute illness, because the nephrologist is the first to make the diagnosis of the acute illness.

Once a patient is on dialysis therapy, the role of the primary care physician differs from country to country. In the United Kingdom, HD patients are seen by a nephrologist once a month, so primary care physicians have an important role to play. In Belgium, HD patients are examined three times a week by a nephrologist15. In Indonesia, the number of nephrologists is very limited, and not every HD service center has a nephrologist. HD patients rarely see a nephrologist, therefore primary care physicians are expected to have a major role.

Optimal collaboration between primary and secondary care physicians should be developed for CKD patients. The shared care model enables better and more cost-effective service coordination. At the stage of CKD patients who have undergone dialysis therapy, primary care physicians still have a role even though nephrologists have the main role. Even at this stage, good cooperation between primary and secondary care doctors can provide the best outcomes for patients and society16.

Primary care physicians need to be given a strengthening understanding of their role at each stage of CKD patients, starting from the stage of recognizing risk factors related to CKD, recognizing the early signs of CKD, monitoring and evaluating patients and the right time for referral to a nephrologist16. Doctor education is very important to achieve the best results17.

Adherence to dietary and fluid restrictions and medical treatment is an important part of the complex and difficult treatment process in dialysis patients. The results showed that there was an important relationship between social support and dietary compliance and fluid restriction in hemodialysis patients. Social support is the provision of assistance, support and enthusiasm that is manifested in the form of information, behavior, material and emotional supports when individuals face difficulties or problems that make them uncomfortable. Having access to social support, whether from a partner, family member, friend, colleague or community, is consistently associated with better health outcomes in patients with various chronic diseases6.

Because of the relationship between adherence to dietary and fluid restrictions, with social support, whether provided by friends, family, medical personnel in dialysis patients, medical personnel need to find strategies to improve communication with patients. This is done to help the patient adhere to the treatment regimen and to encourage family members, friends and significant others to be involved in the patient’s treatment process. In addition, efforts should be made to provide more effective support for dialysis patients. Educating the patient’s family is one useful approach to providing this support17.

REFERENCES


