

FROM THE EDITORIAL OFFICE

Dear All,

In this issue, we are delighted to have Dr. Hiromichi Suzuki, from Japan, share his experience of treating elderly PD patients with us, and also Dr. YS Peng and his colleagues from Taiwan discuss the quality of life of PD patients. In addition, Dr. Wei Fang from China will share his experience of maintaining PD performance standard.

You are most welcome to distribute this newsletter electronically, or in printed form to your colleagues or others who may be interested. If you or your colleagues would like to receive this newsletter directly from our editorial office, please send me your e-mail address.

The 5th Asian Chapter Meeting of the ISPD 2011 is coming this October. We look forward to seeing you in Pattaya, Thailand.

Sincerely,

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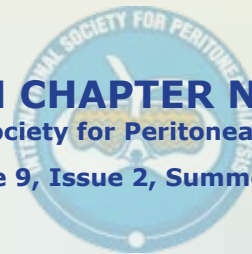
ASIAN CHAPTER SCHOLARSHIP

This scholarship supports up to 3 months of training in clinical PD for doctors and nurses from Asia. Application deadline for each round is twice a year on June 30 or December 31. The next deadline is December 31, 2011. Details and application procedures can be found under the Regional Chapters – Asian Chapter, on the ISPD website at <http://www.ispd.org/lang-en/chapters/asian-chapter>.

ISPD ASIAN CHAPTER NEWSLETTER

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HEALTH-RELATED QUALITY OF LIFE FOR PERITONEAL DIALYSIS PATIENTS



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The maintenance of well-being in health, so called good health-related quality of life (HRQoL), is an important treatment goal of end-stage renal disease (ESRD). Whether the various dialysis modalities have different impacts on HRQoL is a critical clinical issue. However, no definite conclusion can be drawn from previous studies that compared HRQoL between hemodialysis (HD) and peritoneal dialysis (PD) [1, 2].

This may be attributed to the many factors that influence the subjective quality of life reported from the subjects under investigation such as; differences in disease burden, socioeconomic status, family support, social support, and spiritual resources. Even ethnic differences in HRQoL have also been demonstrated among the dialysis population in the study of HRQoL [3]. Since regional and national disparities exist, surveys of HRQoL should be addressed specifically to the regional and ethnic characteristics.

In the survey of HRQoL, proper linguistic, cultural, and specific disease category validations of the HRQoL questionnaires are among the top priorities in selecting survey instrument. Such validations will greatly enhance the comparability of study results with the others of different populations and ethnic groups. There are several well validated disease specific HRQoL questionnaires for the dialysis population, for example, World Health Organization Quality of Life Survey (WHOQOL), Short Form Health Survey (SF-36), the Kidney Disease Quality of Life (KDQOL), and Choices Health Experience Questionnaire (CHEQ). However, validated native language editions of each questionnaire may not be found easily. In Taiwan, the only two validated Taiwan-version HRQoL questionnaires are WHOQOL and SF-36, with both questionnaires validated among populations of various diseases including chronic kidney failure.

While being a highly endemic region for ESRD, dialysis therapy has been the treatment of choice for most patients in Taiwan. Nonetheless, studies on the differences in HRQoL between PD and HD patients are still few. Therefore in recent years, we conducted a multi-center study by applying the Chinese-language version of the SF-36 (Taiwan Standard Version 1.0) to evaluate HRQoL of chronic stable dialysis patients [4]. A total of 866 HD patients and 301 PD patients were included from 14 hospitals or dialysis centers in northern Taiwan. The results showed no significant difference in SF-36 HRQoL scores between Taiwanese HD and PD patients. However, in the subgroup analysis, diabetic

PD patients had marginally higher HRQoL scores than diabetic HD patients.

As a cross-sectional survey, the characteristics of PD and HD patient groups were significantly different. In our study, PD patients were younger, with a lower prevalence of diabetes and cardiovascular diseases, better educated, less likely to be widowed, and more likely to be employed. Similar discrepancies in demographic factors were also found in previous studies [1, 2].

The exact reason for the association between marginally better HRQoL with PD in diabetic patients could not be clarified in this study. The first possible reason is the different baseline patient characteristics. As the high concentrations of glucose in PD dialysate may produce unfavorable results to diabetic patients [5], it hinders physicians and diabetic patients from choosing PD as the dialysis modality. It is likely that certain socioeconomic conditions may cause diabetic patients to receive peritoneal dialysis. For example, ESRD patients who have higher socioeconomic status, self-care ability, sense of independence, or even family support may tend to select PD as the dialysis modality [6]. Because of such selection bias, diabetic PD patients may have higher HRQoL.

The other possible reason is that PD treatment brings better improvement in HRQoL for diabetic ESRD patients. Yet, to our knowledge, there have been no reports showing better improvement in HRQoL for PD patients. Further longitudinal study among Taiwan dialysis population is needed to clarify this point.

Some limitations lie in our study. First, it was a cross-sectional observational study that we did not exclude differences in QOL before dialysis. Second, time-dependent HRQoL changes in HD and PD patients still cannot be clarified by this study. Further longitudinal comparisons using an incident dialysis cohort are needed.

HRQoL is an important treatment goal. The current survey enhances our understanding of the association between HRQoL with dialysis modality in Taiwan ESRD population. No significant differences among the various dialysis modalities were found in their effects on HRQoL. Even in diabetic ESRD patients, PD is not found to have negative impact on their HRQoL.

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SURVIVAL OF PATIENTS OVER 75 YEARS OF AGE ON PERITONEAL DIALYSIS



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Since the number of elderly patients is rapidly increasing, the elderly are the largest and fastest growing group of patients on dialysis, but they are still less likely to be started on continuous ambulatory peritoneal dialysis (CAPD). Elderly patients with end-stage renal disease (ESRD) have considerable, comorbidity, not only the vascular disease associated with their renal disease, but also the comorbidity found in many older people, including impaired vision, deafness, poor mobility, arthritis and cognitive problems. Altogether, 46 patients over 75 years of receiving CAPD were eligible and were observed over a period of 5 years. Patients were divided into two groups; one had ejection fraction (EF) more than 50%; Normal EF group and the other had EF below 50%; Abnormal EF group according to the findings obtained by Echocardiography at the start of CAPD.

The overall survival rate was 70% at 12 months, 40% at 24 months, 20% at 36 months, and 10% at 60 months; Kaplan-Meier survival curves are shown in Figure 1A. The impact of cardiac function on survival rate was analyzed using Cox regression and Figure 1B shows the survival curves for patients with and without Abnormal EF. Nine patients (75%) in the Abnormal EF group and 26 patients (76%) in the Normal EF group survived 12 months; however, at 24

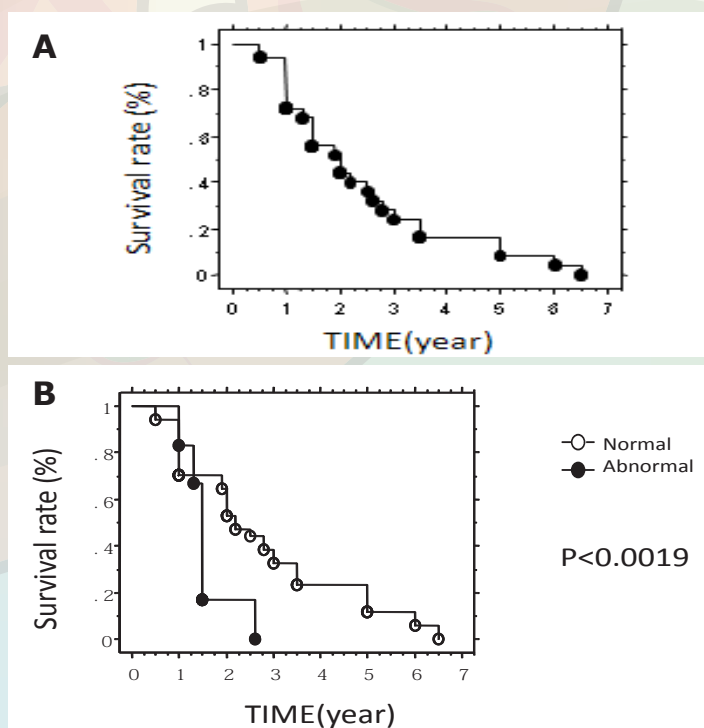


FIGURE 1 (A) Kaplan-Meier survival curves for patients over 75 years old on CAPD. (B) Kaplan-Meier survival curves for patients over 75 years old on CAPD, comparing those without cardiac dysfunction and with cardiac dysfunction (log rank statistic 9.661, $P<0.0019$).

months, only 2 patients (16%) in the Abnormal EF group and 18 patients (52%) in the Normal EF group were surviving. There was a significant difference between the two groups using log-rank test ($P < 0.0019$). A majority of patients in both groups died of infection. The percentage of death due to cardiovascular diseases was 15% in both groups and there are no significant differences in causes of death between the two groups. Several risk factors for infection have been proposed such as serum albumin, diabetes, residual renal function, etc. A relatively large scale investigation revealed that the degree of malnutrition correlated with serum albumin values [1], a finding that was consistent with the data of Mignon et al. [2] that showed that a low initial albumin level was a risk factor for mortality in elderly patients on CAPD. From these findings, it is likely that reduced cardiac output may produce malnutrition for a long time and eventually patients with low cardiac output combined with lower serum albumin will be susceptible to infection.

Our data demonstrated that cardiac performance at the initiation of PD therapy in conjunction with lower levels of serum albumin determines the prognosis of PD patients over 75 years old.

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SUCCESS FACTORS FOR A QUALITY PERITONEAL DIALYSIS PROGRAM

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Introduction

In the last decade, the number of peritoneal dialysis (PD) patients has continued to increase in China. However, patient outcome is markedly variable among different centres. Measures of patient outcomes include PD technique survival, peritonitis rate, mortality, biochemical markers of dialysis efficiency such as Kt/V, haemoglobin and serum albumin levels, measured residual renal function and patient satisfaction, hospitalization rate, to name just a few.

There are many commonalities between centres that achieve good PD Outcomes. They include: clinical governance with an organizational structure that supports the program with, robust systems and process, integration of disciplined continuous quality improvement strategies, the presence of unit wide policies and procedures that direct and underpin practice standards and established key performance indicators with a team based culture (Figure 1).

Clinical governance

Clinical governance is the term used to describe a systematic approach to maintaining and improving the quality of patient care within a health system. The term became widely used in health care following the Bristol Babies Scandal in 1995, during which anaesthetist Dr. Stephen Bolsin exposed the high mortality rate for paediatric cardiac surgery at the Bristol Royal Infirmary. It was originally elaborated within the United Kingdom National

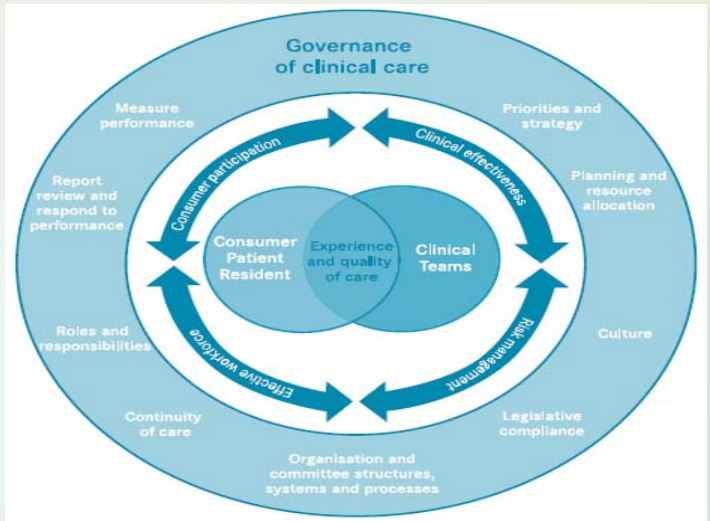


FIGURE 1 Governance of clinical care

Health Service (NHS), and its most widely cited formal definition describes it as: A framework through which NHS organizations are accountable for continually improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish.^[1] This definition is intended to embody three key attributes: recognizably high standards of care, transparent responsibility and accountability for those standards, and a constant dynamic of improvement.

The concept has some parallels with the more widely known corporate governance, in that it addresses those structures, systems and processes that assure the quality, accountability and proper management of an organization's operation and delivery of service. However clinical governance applies only to health and social care organizations, and only those aspects of such organizations that relate to the delivery of care to patients and their carers; it is not concerned with the other business processes of the organization except insofar as they affect the delivery of care.

In the case of a successful PD program, clinical governance requires medical leadership with collaboration of the entire PD team. Committed and passionate team members are crucial to a successful PD program.

Patient selection for PD

Accumulating evidence indicates the importance of proper patient selection for the modality of renal replacement therapy [2]. Dialysis modality should be determined by the fully informed patient in the absence of medical and psychosocial contraindications. However, there is little guidance or data regarding specific selection factors to aid modality choice [3]. In our experience, key selection factors that might favour PD success are shown in Table 1.

Disciplined patient education and continuous support

Maintaining patients successfully on PD with positive outcomes requires disciplined and ongoing patient education and support. Several studies report improved technique survival in larger PD centres with centralized training practices. Training practices based upon adult-learning principles incorporating real-life problem-solving techniques have been shown to reduce exit-site infections, improve fluid balance, compliance and decrease dropouts from PD [4]. A post-training competency test for the patient should be completed to determine if the training objectives have been met. The International Society of Peritoneal Dialysis (ISPD)

TABLE 1 Key selection factors that favour PD success

Patient preference for PD
Motivation to perform home self-care treatment
Absence of medical and psychosocial contraindications
Training-ability to be trained and retrained
Adequate manual dexterity for exchanges
Visual acuity
Young patients with less comorbidity
Good compliance
Strong support from family
Clean area available for exchanges
Adequate storage area with access for supply, delivery

guidelines recommend retraining after every episode of peritonitis, catheter infection, prolonged hospitalization, or any other interruption in PD [5]. Retraining should include re-education of connection procedures, infection control, contamination risks and medication compliance. Retraining of PD nurses and other support staff should also occur to ensure their skills and knowledge are renewed and maintained over time.

Establishing appropriate protocols

Establishing appropriate protocols is important for standardized PD practice and patient treatment. Protocols for catheter insertion, patient training, infection control, peritonitis treatment, fluid control etc as well as protocols for staff training should be available.

Monitoring Key Performance Indicators (KPIs) and establishing continuous quality improvement (CQI) programs in PD Practice

A KPI is a term for a type of measure of performance. KPIs are commonly used by an organization to evaluate its success or the success of a particular activity in which it is engaged, providing a benchmark to be met and exceeded. KPI's should be achievable and allow for inter/intra unit comparison. Benchmarking between units serve as a valuable opportunity to determine performance and encouraging a culture high performance. Core KPIs in a PD program includes clinical, process and infrastructure KPIs. Measuring KPIs is an essential component of PD practice and is necessary for benchmarking, performance improvement and better clinical outcome. Continuous quality improvement programs should be established with regular reporting of outcomes and become a natural part of everyday work and will be engrained within the culture of all within the PD unit. From 2005, instituted monthly CQI meeting with all members of the PD team, to evaluate root causes of PD complications and plan interventions to address them. CQI programs were established and processed in our centre. Compared to the patients who started PD between the year of 2000 and 2004, the 2005-2009 patient cohort achieved better patient outcome. Two-year patient survival rate improved from 79% to 88% ($p<0.05$) (Figure 2), and 2-year technique survival from 91% to 93%.

Conclusion

In conclusion, dedicated staff, appropriate patient selection, disciplined patient training and ongoing patient support, protocol establishment, routine monitoring KPIs and continuous quality improvement initiatives contribute to a successful quality PD program.

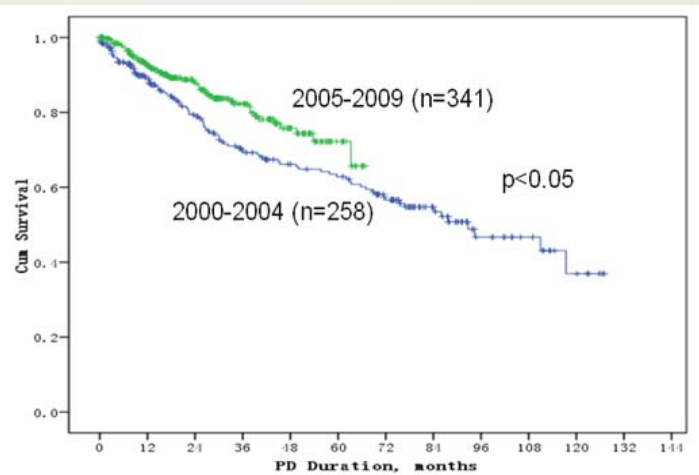


FIGURE 2 Patient survival of 2005-2009 cohort was improved compared to 2000-2004 cohort in Renji hospital.

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NEWS OF THE ISPD - UPCOMING MEETINGS

The 5th Asian Chapter Meeting of the ISPD

October 6-8, 2011

International Convention Center

Dusit Thani Pattaya, Thailand

Website: <http://acm-ispd2011.org/welcome.html>

An exciting PD Quiz for Nephrology Fellows will be conducted during the meeting. For details click on 'Asian PD Contest' link on the home page of the meeting website as noted above.

ISPD Latin American Chapter Meeting

August 26-27, 2011

Lima, Peru

Website: <http://www.ispd-lac2011peru.org/>

32nd Annual Dialysis Conference

February 26-28, 2012

San Antonio, Texas, USA

<http://som.missouri.edu/Dialysis/>

ISPD 2012 - 14th Congress of the International Society for Peritoneal Dialysis

September 9-12, 2012

Kuala Lumpur, Malaysia

Website: <http://www.ispd2012.org.my/index.html>