coculture system using Transwell. After the coculture is done, the gene and protein expression level of PMCs in up wells are tested by RT-PCR, Immunofluorescence and Western blotting respectively.

Results: The IL-10 mRNA expression level all decrease in 6–24 h while increase 24 h later, and is lower in M1 than other groups (M0, M2a, and M2c). M1 shows high expression of IL-6, IL-12, while the M2a and M2c relatively lower. The mRNA expression level of CCL17 is higher in M2a while CCL17 higher in M2c. Compared to the control group, fluorescence intensity of E-cadherin in coculture groups is decreased, and the M2c group is the most obvious with statistical difference (P < 0.05). The fluorescence intensity of α-SMA in PMCs cocultured with macrophage is higher than the control group. The gene expression of E-cadherin in PMCs is down-regulated when cocultured with M2c (P < 0.05). α-SMA expression level is up-regulated after cocultured with M2a or M2c (P < 0.05). Compared with the control group, the protein expression of E-cadherin is down-regulated and α-SMA is up-regulated when cocultured with M2c.

Conclusion: We successfully induce macrophage subsets (M1, M2a, M2c) differentiation using THP-1 with TPA and LPS+IFN-γ, IL-4, IL-10. 2. Macrophage subtypes up-regulate α-SMA expression and down-regulate E-cadherin, promoting EMT of PMCs in some degree. And the effect of M2c is the most significant.

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0292 Role of TRPC in Endothelial-Mesenchymal Transition of Human Peritoneal Mesothelial Cells Induced by High Glucose
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Objective: To investigate the role of TRPC in the process of endothelial-mesenchymal transition (EMT) of human peritoneal mesothelial cells (HMrSV5) induced by high glucose.

Methods: (1) HMrSV5 cells were exposed to elevated glucose (50, 75 mM) or d-mannitol (osmolality). The expression of mRNA level of TRPC subtype (1/3/4/5/6/7) was detected by RT-PCR and immunofluorescence after culturing for different times (24 h, 48 h, 72 h). (2) Effects of 2-APB (TRPC inhibitor) on the EMT in human peritoneal mesothelial cells induced by high glucose. HMrSV5 were grouped as follow: normal group, high glucose group (HG), isotonic control group, HG+2-APB (100 mM) group, and isotonic control group (2-APB (100 mM) group. The expression of mRNA and protein levels of TRPC subtype (1/3/4/5/6/7), α-smooth muscle actin (α-SMA), and E-cadherin were detected by RT-PCR and immunofluorescence.

Results: The expression of TRPC1/3/6 and α-SMA in high glucose (50, 75 mM) was increased, and the expression of E-cadherin was down-regulated both in a dose-dependence manner (P < 0.05). High expression of TRPC1/3/6 and α-SMA and low expression of E-cadherin could be reversed by using 2-APB (TRPC inhibitor) (P < 0.05).

Conclusion: The expression of TRPC increased in human peritoneal mesothelial cells induced by high glucose. 2-APB could partly prevent EMT in human peritoneal mesothelial cells induced by high glucose. We can conclude that TRPC plays an important role in EMT process of human peritoneal mesothelial cells.

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0299 Comparative Study of Chronic Renal Failure Patients’ Efficacy Between Sustained Low-efficiency Daily Dialysis (SLEDD) and Intermittent Hemodialysis (IHD)
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Objective: To compare the different efficacies of chronic renal failure (CRF) patients between sustained low-efficiency daily dialysis (SLEDD) and intermittent haemodialysis (IHD), study the characteristics of these two kinds of dialysis patterns, in order to provide the basis for different clinical patients choosing a scientific and rational hemodialysis therapy.

Methods: During the time from November 2012 to March 2015, there were 40 CRF patients who needed hemodialysis therapy from Qinghai province people’s hospital gathered in this study. Recorded their personal informations, monitored their blood pressure, blood solute clearance situation and electrolyte changes before and after dialysis.

Results: Two groups’ post-dialysis mean blood urea nitrogen (BUN), serum creatinine (Cr), potassium (K’), sodium (Na’), calcium (Ca²⁺) and phosphorus (P³⁻), as well as their mean arterial pressure (MAP) and their mean heart rate (HR) had statistically significant differences when compared with pre-dialysis (P < 0.05). SLEDD group had a better effect than IHD group at Kr/V, potassium remove index, sodium remove index, calcium remove index and phosphorus remove index, these results were actually statistically significant (P < 0.05). blood urea nitrogen rate of decline and creatinine remove index had no significant differences (P > 0.05). The mean arterial pressure (MAP) of patients from two groups had fallen after dialysis, but SLEDD group’s changing was smaller than IHD group, the difference was in fact statistically significant (P < 0.01). After dialysis, two groups patients’ heart rate (HR) had slowed, but SLEDD group’s changing was less, the difference was really statistically significant (P < 0.05).

Conclusion: Sustained low-efficiency daily dialysis (SLEDD) and intermittent haemodialysis (IHD) can effectively remove the blood small solutes of patients with chronic renal failure, effectively reduce the mean arterial pressure, and heart rate. SLEDD was more effective than IHD to lower patients’ blood potassium, sodium and phosphorus, elevated their blood calcium, had higher dialysis adequacy and a more stable hemodynamics.

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0315 Impact of C-Reactive Protein Variability on Failure of Dialysis Access in Hemodialysis Patients
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Background: Chronic inflammation is associated with the enhancement of vascular calcification and mortality in dialysis patients. Although C-reactive protein (CRP) is commonly measured as the surrogate marker of inflammation, the impact of CRP variability upon failure of dialysis access, however, has rarely been investigated.

Methods: We performed a retrospective study to evaluate the relationship of CRP variability and access failure at a medical center in southern Taiwan. The demographic and biochemical data were reviewed and collected. The access failure included the crash of arteriovenous shunt and permanent catheter.

Results: A total of 318 chronic hemodialysis patients were enrolled. They were divided into three groups defined as consistently low (n = 65), consistently high (n = 39), and high fluctuation (n = 214), according to CRP variability assessing at many times during 7-year dialysis period. Patients in high fluctuation group exhibited older, with higher body mass index, and greater proportion of male. Their serum albumin level and urea reduction rate were also lower. Meanwhile, significantly highest dialysis access failure rate was observed in the high fluctuation group. (consistently low: 0.10 episode/patient-year; consistently high: 0.11 episode/patient-year; high fluctuation: 0.14 episode/patient-year; p = 0.037)

Conclusion: We concluded that high prevalence of high CRP variability in chronic hemodialysis patients. Furthermore, the CRP variability was associated with dialysis access failure. This finding punctuated an important role of chronic inflammation in this common clinical condition.

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0332 Early Ambulation and Incidence of Drift Tube After Peritoneal Dialysis Catheter Insertion
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Objective: Poor dialysate drainage is an important factor that results to the failure of peritoneal dialysis. Patients who had just underwent an operation
of peritoneal dialysis catheter insertion were advocate complete bed rest for 1–3 days in the past years. But most patients suffered from poor dialy-
sate drainage, drifting tube and voiding difficulty after complete bed rest. 
The aim of this study was to explore whether early ambulation could reduce 
the incidence of drift tube in peritoneal dialysis patients after peritoneal 
dialysis catheter insertion.

Methods: We included 134 patients with end-stage renal disease (ESRD) who 
are undergoing peritoneal dialysis in peritoneal dialysis center of Guizhou 
Province. Patients were divided into 2 groups randomly. Patients with six 
hour ambulation after the operation of peritoneal dialysis catheter insertion 
were allocated to the study group, and patients who got the traditional post-
operative care were assigned to the control group. No obvious difference 
was found between the two groups in age, gender, dialysis tube type, cath-
ether way, and dialysis prescriptions. The incidence of drift tube in the study 
group was statistically significant, P < 0.05. Conclusion: Six hour ambulation after the operation of peritoneal dialysis 
catheter insertion could induce the incidence of drifting tube.

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0334 Omega-3 Fatty Acids Supplementation on Systemic Inflammatory Biomarkers and Albumin in Dialysis Patients: Meta-analysis of Randomized Clinical Trials
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Objective: Chronic inflammation and malnutrition are common in dialysis 
patients, and negatively impact their survival prognosis. Experimental 
studies of omega-3 supplementation describe salutary effects on nutritional 
state and inflammatory markers. However, evidence from clinical trials is 
inconsistent. The aim of this meta-analysis was to combine evidence from 
randomized controlled trials (RCTs) to assess the effect of omega-3 supple-
mentation on the change in serum C-reactive protein (CRP), Interleukin (IL)- 
6, tumor necrosis factor (TNF)-α, and albumin.

Methods: PubMed, CBM, EMBASE, CENTRAL and Cochrane renal group 
specialized register were searched to identify the relevant RCTs that tested 
the effects of omega-3 supplementation on dialysis patients. Standard mean 
differences (SMDs) for CRP and albumin, mean differences (MDs) for IL-6 and 
TNF-α, 95% confidence intervals (CIs) were calculated and heterogeneity was 
assessed with the I2 test.

Results: 12 RCTs with 564 dialysis patients were included in the meta-analysis. 
The dose of omega-3 ranged from 1 to 6 g/d, and the mean follow-up was 3.5 
months. Pooled analysis revealed that omega-3 intake significantly reduced 
serum CRP levels (SMD, −0.52; 95% CI, −0.92 to −0.13; p = 0.01). However, 
no statistically significant effects were observed for IL-6, TNF-α and albumin 
levels. Subgroup meta-analysis suggested that smaller doses (<3 g/d) or 
shorter-term interventional duration (≤3 months) could also lower CRP.

Conclusion: In our meta-analysis, omega-3 intake significantly lowered the 
serum CRP levels, but had no effect on albumin concentration. There is no 
conclusive evidence whether it can modulate the IL-6 and TNF-α level.
Large, high-quality trials with hard clinical outcomes are warranted.

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0335 Evaluating and Analyzing the Nutrition of Peritoneal Dialysis Patients by NRS2002
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Objective: To evaluate the malnutrition incidents of continuous ambulatory 
peritoneal dialysis (CAPD) inpatients by nutrition risk screening 2002 
(NRS2002) and the nutrition support application status, to judge the changes 
of the nutritional status in patients, to predict the risk of malnutrition and to 
provide the basis in intervenieig and adjusting the method of nutritional sup-
port of CAPD patients.

Methods: Use continuous sampling of Inpatients in the Nephrology Department 
of Guizhou Provincial Hospital from January 2013 to December 2014 by using the 
NRS2002, record the general condition, height, weight to calculate body mass 
index (BMI), acquire the changes of the weight in recent 3 months and diet 
and record the nutritional nutritional support of patients during hospitalization.

Results: Of all the patients, exclude those who do not conform to the stand-
dard (patients cannot get accurate BMI with large hydrothorax and ascites, 
severe edema), total 286 patients accept the nutrition risk screening, the 
applicable rate of NRS2002 is 95.3%. The total rate of nutritional risk on 
 admission is 56.0%, the incident of undernutrition by calculating by 
BMI < 18.5 kg/m^2 is 38.3%. The incident of nutrition support with nutritional 
risk and non-nutritional risk is 62.2% and 19.0%, respectively. The total nutri-
tional risk rate on admission and after 2 weeks in hospital (or out of the hos-
pital) was 30.0% and 35.8%, respectively. There was no statistically 
significant difference between them (11.193, P = 0.0132), 102 in 168 pa-
tients with nutritional risk nutrition accepted nutritional support, that is 60.71%; 
parenteral to enteral nutrition was 68.3 (23:1), energy intake was 
56.78 ± 8.20 kJ/kg·d, nitrogen uptake was 0.06 ± 0.01 g/kg·d. 86 in 118 pa-
tients with non-nutritional risk accepted nutritional support (72.88%), no 
parental nutrition and all with enteral nutrition.

Conclusion: NRS2002 is appropriate for the nutrition screening in inpatients 
who accept CAPD. Clinical nutritional support is taken seriously in 
nephrology department, but there are unreasonable applications of parente-
nal and enteral nutrition in clinical work.

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0338 Related Factors of Pre-dialysis Blood Pressure Variability in Pediatric Patients Undergoing Maintenance Haemodialysis
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Objective: To explore the blood pressure variability (BPV) in pediatric pa-
tients undergoing maintenance hemodialysis (MHD) and to assess the factors 
associated with pre-dialysis BPV (pre-HD BPV).

Methods: The pediatric patients which regular dialysis more than twelve 
month from October 2005 to October 2011 in our hospital blood dialysis cen-
ter were divided into the high pre-HD BPV group and low pre-HD BPV group. 
Baseline characteristics, biochemical indexes and cardiac function parame-
ters measured by echocardiography were collected in both group and multi-
ple linear regression analysis were performed.

Results: The inter-dialytic weigh growth rate (IDWG), pre-dialysis systolic 
blood pressure and average amount of dehydration were significantly higher 
than low BPV group (P < 0.05), as well as hemoglobin and albumin levels 
were significantly lower than low BPV group (P < 0.05). BPV group weight 
increased during dialysis, increased significantly (P < 0.05). Comparison 
among the laboratory indicators, serum phosphorus and parathyroid hor-
mone were significant different between groups (P < 0.05). For all pediatric 
patients, IDWG (β = 0.165), pre-dialysis systolic blood pressure (β = 0.259), 
and iPTH (β = 0.187) were positively correlated with pre-dialysis BPV and 
hemoglobin level (β = −0.199) was negatively correlated.

Conclusion: Increasingly IDWG, higher pre-dialysis systolic blood pressure, ane-
mia and secondary hyperparathyroidism affect BPV in pediatric patients on MHD.

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0339 Modified Fluid Management Technique Training in Elderly Patients with Peritoneal Dialysis
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Objective: This study is dedicated to provide a more appropriate operation of 
fluid management in elderly patients according to the characteristics of them.

Methods: This research in which all elder patients aged between 60–84 
years old on PD, average 68.71 ± 3.25, were studied from January 2013 to