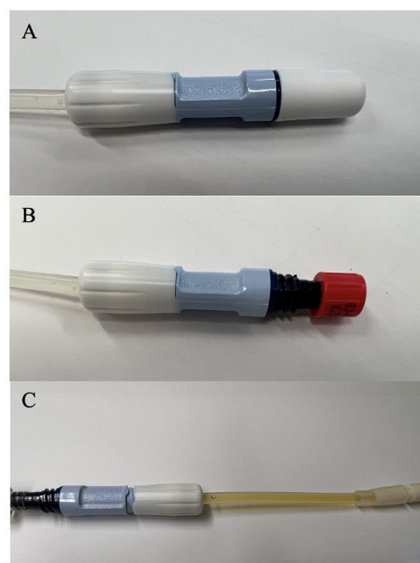


Comparison of MiniCap™ and CUROS™ cap in patient 2



A – PD catheter closed with 10% Povidone-Iodine cap
B – PD catheter closed with CUROS cap lined with 70% isopropyl-alcohol
C – PD flushed with saline following lock with cap impregnated with 10% Povidone-Iodine

Conclusions: Infants under the age of 1 utilizing PD systems with iodine-impregnated caps should be screened for iodine-induced hypothyroidism. Risk factors for iodine toxicity include lack of a last fill to flush the iodine which has leached into the catheter. Development of effective iodine-free transfer set caps is imperative, but in the interim, early recognition and effective thyroid supplementation are the mainstay of treatment.

I have no potential conflict of interest to disclose.

WCN24-1065

QUALITY INDICATORS IN PERITONEAL DIALYSIS IN A CLINIC FROM FLORIANÓPOLIS, SANTA CATARINA, BRAZIL

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Introduction: The dialysis census published by the Brazilian Society of Nephrology in 2022 estimated 153,831 patients on dialysis in Brazil, being 95.3% of them on hemodialysis (HD) and 4.4% on peritoneal dialysis (PD)¹. Despite the greater comfort and practicality in relation to HD, the prevalence of PD remains very low, and among the causes it is able to cite the inappropriate education of patients about home dialysis, shortage of trained medical and nursing staff, lack of infrastructure for urgent start PD support, infections as a cause of therapy failure, among other factors². It is essential to know the quality of home peritoneal dialysis treatment, so that professionals can be encouraged and have the means for revitalizing the program by reducing the complications of the method, and thus, be a priority indication in dialysis treatment. The study's objective is to evaluate the PD quality indicators of a dialysis clinic in Florianópolis and to profile the episodes and outcomes of peritoneal infections.

Methods: A retrospective descriptive study was carried out on the medical records of patients in the PD program of a dialysis clinic in the year 2022 in Florianópolis, Santa Catarina, Brazil. The following quality indicators in PD were evaluated: rate of penetration into therapy, choice of therapy by newly diagnosed patients (Take on Rate-TOR), time in therapy (Time on Therapy-TOT), exit from therapy (drop out) and its reasons, in addition to the rates of peritonitis with the respective causative agents.

Results: Out of the 289 patients on dialysis, 113 were on PD at the end of the period, with a therapy penetration rate of 39% (average in Brazil is

6.8%). The average time on PD was 41.2 months (average in Brazil is 27 months), with the method being chosen 26% of the time (Brazil 0.7-3.9%). A drop out rate of 34% was found (global average is 16-35%), the main reasons being deaths (22%), change of method (12%) and kidney transplantation (7%). Regarding peritonitis, 31 episodes were recorded in 2022, with a rate of 0.27% patients per year. Considering the target of up to 0.5%, it is clear that patient care in the method is being taken into consideration. Of these peritonitis, 21.87% were caused by coagulase-negative staphylococci, 15.62% by *Escherichia coli*, 9.37% were culture negative, 6.25% by *Pseudomonas aeruginosa* and the remainder distributed among other bacteria. All bacteria found were sensitive to third-generation cephalosporins. No deaths related to peritonitis were recorded, but 6 cases (18.75%) had therapy failure due to the infection.

Conclusions: The reason the sample presented good quality indicators may have been due to the selection of a clinic already considered a reference for the method in Florianópolis. The existence of strict control and monitoring that lead to early interventions determines good clinical results. Understanding and addressing the various issues that hinder the PD treatment can help increase the prevalence of PD in Brazil and around the world.

I have no potential conflict of interest to disclose.

WCN24-1075

A MACHINE LEARNING-PREDICTIVE MODEL TO IDENTIFY FACTORS ASSOCIATED WITH DEATH IN DIALYSIS PATIENTS

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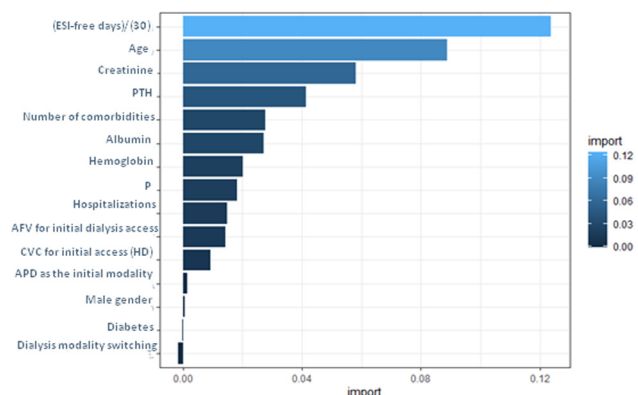
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Introduction: Chronic Kidney Disease (CKD) is a significant global health concern, and dialysis patients have a higher mortality rate from cardiovascular disease (CVD) compared to the general population. The use of Machine Learning (ML) and Artificial Intelligence in medicine has grown exponentially over the past few decades. However, few studies have focused on predictive models for determining factors associated with death in dialysis patients, with a predominant focus on the hemodialysis (HD) population. The primary objective of this study was to identify mortality-related factors in patients undergoing both hemodialysis (HD) and peritoneal dialysis (PD), encompassing both planned and urgent starts.

Methods: R software algorithms were employed to develop ML predictive models. The study included adult patients undergoing HD and PD, either in a planned or urgent manner, between January 2014 and January 2019, at Hospital das Clínicas da Faculdade de Medicina de Botucatu located in Botucatu, São Paulo, Brazil. Epidemiological, clinical, and laboratory data were collected.

Results: The results showed that death occurred in 170 patients (29.3%). Cox regression analysis revealed that death was associated with older age, fewer Exit Site Infection (ESI)-free months, lower initial creatinine, dialysis-related infection (peritonitis for PD and bloodstream infection for HD), and hospitalizations (Table 1). Random forest (Figure 1) ranked the following main variables predictive of death in descending order of importance: ESI-free months; age and initial levels of creatinine.

Figure 1: Variables importance ranked by Random Forest



Conclusions: In conclusion, this study revealed that ESI-free months, age and initial creatinine levels were associated with death on both multivariate and ML-based analyses. The content presented in this abstract was submitted for other meetings.

I have no potential conflict of interest to disclose.

WCN24-1189

OUTCOME OF A TRAINING PROGRAM FOR NEPHROLOGISTS IN THE INSERTION OF PERITONEAL DIALYSIS CATHETERS



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Introduction: For patients requiring renal replacement therapy (RRT), peritoneal dialysis (PD) is an alternative to maintain an optimal quality of life. The long-term success of PD depends mainly on the use of a safe, functional, and durable peritoneal catheter.

The aim of this study is to describe the results of a training program for peritoneal catheter insertion aimed at nephrologists in dialysis centers in South America.

Methods: Longitudinal, retrospective study conducted in four countries: Colombia, Chile, Ecuador and Bolivia. Patients who underwent PC insertion between January 2022 and May 2023 were included. The procedure was performed by

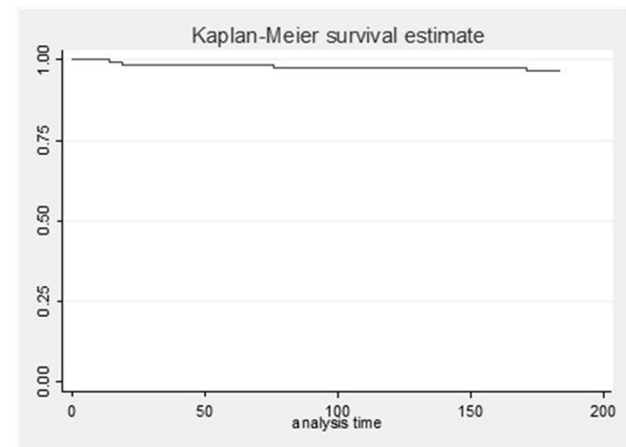
nephrologists participating in a specific training program. The baseline characteristics of the subjects, information related to the procedure, catheter function follow-up and complications in the first, third and sixth month after catheter insertion were collected and analyzed from the clinical records.

Results: 121 subjects who underwent peritoneal catheter insertion were included, with a median age of 59 years (range 18 to 94), 51% (n=62) women. Arterial hypertension (83.47% n=101) and diabetes mellitus (56.20% n=68) were the most frequent clinical history of the study subjects. These pathologies were the primary cause of renal disease in 33.06% (n=40) and 47.93% (n=58) of the subjects, respectively. Of the total, 44.63% of individuals were overweight or obese (n=54 with BMI ≥ 25), and 14.04% (n=16) had previous abdominal surgery. Before starting the procedure, all patients had to have their bladder emptied and receive a prophylactic dose of antibiotics. Implant insertion was performed with local anesthesia in 85.12% (n=103), sedoanalgesia (lidocaine/midazolam) in 14.88% (n=18). The modified Seldinger technique with 2 cm left lateral incision, horizontal to the umbilicus, was performed in 83.19% (n=94). Catheter implantation was successful in 95.04% (n=115) of the procedures. Causes of non-success included the impossibility of reaching the peritoneal cavity, adhesions, pain and inadequate preparation of the patient. Elective PD was performed in 66.67% (n=80) of the subjects, while 29.17% (n=35) required emergency peritoneal dialysis. In the first two weeks after the procedure, complications occurred in 5.78% (n=7/121) subjects with 10 events, including catheter tip migration (n=2), flow failure (n=2), one case of bleeding requiring transfusion and one surgical site infection. The proportion of subjects who had complications was 2.59% (3/116 subjects, 3 events), 3.64% (4/110 subjects, 4 events) and 8.65% (9/104 subjects, 11 events) at the first, third and sixth months of follow-up, with no significant differences between procedures performed with mentoring or those without supervision (Table 1). During the follow-up, 9 subjects required catheter repositioning for surgery. Catheter permeability was maintained in 99.14% (n=115), 95.45% (n=105) and 95.19% (n=99) of subjects, respectively at the first, third and sixth month of follow-up. Persistence on peritoneal dialysis was recorded in 97.41% (n=113) in the first month, 97.27.46% (n=107) in the third month and 93.27% (n=97) in the sixth month post-peritoneal catheter implantation (Figure 1).

Table 1. Complications reported during follow-up of peritoneal catheter insertion.

Event	Catheter insertion with mentoring		Total. n(%)	p-value
	Yes. n(%)	No. n(%)		
Post-procedure*				
Bleeding	1 (1,9)	0 (0,0)	1 (0,8)	0,430
Surgical Site Infection (SSI)	1 (1,9)	0 (0,0)	1 (0,8)	0,430
Catheter tip migration	2 (3,8)	2 (2,9)	4 (3,3)	1,000
Flow failure	2 (3,8)	2 (2,9)	4 (3,3)	1,000
Month 1				
Catheter tip migration	2 (4,2)	0 (0,0)	2 (1,7)	0,169
Flow failure	0 (0,0)	1 (1,5)	1 (0,9)	1,000
Month 3				
Infectious peritonitis	0 (0,0)	3 (4,8)	3 (2,7)	0,259
Flow failure	1 (2,1)	0 (0,0)	1 (0,9)	0,427
Month 6				
Infectious peritonitis	2 (4,3)	5 (8,6)	7 (6,7)	0,460
Catheter tip migration	2 (4,3)	0 (0,0)	2 (1,9)	0,193
Flow failure	2 (4,3)	0 (0,0)	2 (1,9)	0,193

*within 15 days of catheter insertion.



Conclusions: Optimal peritoneal access can be ensured by implementing educational programs that provide the necessary tools for appropriate implant placement, successful peritoneal catheter maintenance, and a low rate of PD complications.

I have potential conflict of interest to disclose.

WCN24-1190

EOSINOPHILIC PERITONITIS IN A PATIENT IN CAPD ASSOCIATED WITH NEUROENDOCRINE CARCINOMA OF THE CECAL APPENDIX, AN INCIDENTAL FINDING IN AN APPENDECTOMY. CASE REPORT



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Introduction: Eosinophilic Peritonitis (EP) is a non-infectious complication associated with peritoneal dialysis (PD) treatment, which is defined by the presence of >100 eosinophils/mm³ or $>10\%$ eosinophils in the total leukocyte count of the PD effluent; in the presence of negative peritoneal fluid cultures and symptoms suggestive of peritonitis, which may or may not present with peripheral eosinophilia. It is probably induced by chemical stimuli that pass through the catheter and has an incidence that varies from 16 to 60%. Neuroendocrine tumors as primary malignant neoplasms of the cecal appendix are rare; 1/10,000 cases are reported worldwide and constitute 0.2 to 0.5% of all tumors of the digestive tract. Its difficult presurgical diagnosis is an obstacle to its timely treatment.