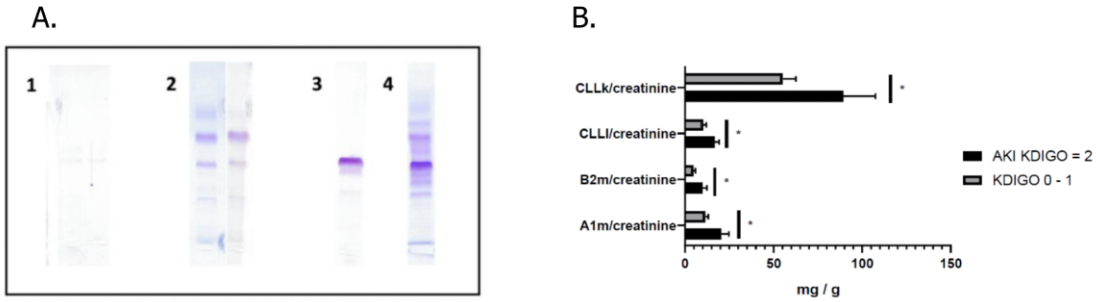

FIGURE 1: A. Different urinary profiles in UPE. 1: Normal profile, 2: Tubular profile, 3: Glomerular profile, 3: Mixed profile. B. Urine protein assay in COVID ARDS patients with and without AKI KDIGO ≥ 2 in univariate analysis.

index (HR 1.46, 95% CI 1.19–1.79; $P < .001$) were independently associated with higher mortality from all causes within 180 days after discharge after adjusting for age, gender, frequency of obesity, HTN, CAD, DM, ADHF, hospitalization in the ICU and lesions of more than 50% lung volume in the acute phase of COVID-19.
CONCLUSION: AKI in the acute phase of COVID-19 and the Charlson index are independently associated with higher mortality within 180 days after discharge.

MO333 PREVALENCE OF COVID-ASSOCIATED RENAL INJURY IN ICU AND PROGNOSIS OF PROXIMAL TUBULAR DYSFUNCTION IN ACUTE RESPIRATORY DISTRESS SYNDROME

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BACKGROUND AND AIMS: During COVID-19, the renal impairment is the most frequent after lung impairment and is associated of poor prognosis particularly in the intensive care unit (ICU). In this work, we aim to assess the incidence of acute kidney injury (AKI) in COVID-19-related acute respiratory distress syndrome (ARDS) patients, the existence of an early renal dysfunction and its prognosis, and its specificity compared with patients with non-COVID ARDS.
METHOD: This a prospective and multicentric study led in four ICUs. Patients of 18 years and older in ICU with invasive mechanical ventilation for ARDS were enrolled. Precise evaluation of renal dysfunction markers, including urinary protein electrophoresis, was performed within 24 h after the onset of mechanical ventilation.
RESULTS: From March 2020 to September 2021, 131 patients in ICU for ARDS were enrolled, 98 COVID-19 ARDS and 33 ARDS from other causes. There was more tubular profile in COVID-19 patients (68% versus 24%; $P = .001$) and a more mixed, tubular and glomerular profile in non-COVID-19 patients (29% versus 14%; $P = .001$). COVID-19 patients displayed an important tubular proteinuria, tended to display more AKI (49% versus 31%; $P = .07$), and had a longer duration of mechanical ventilation (18 versus 10 days; $P = .002$) and longer ICU length of stay (23 versus 15 days; $P = .013$). In COVID-19 patients, tubular proteinuria was associated with poor renal prognosis with a significant association with the onset of KDIGO ≥ 2 AKI.
CONCLUSION: COVID-19 ARDS patients had a specific renal impairment with tubular dysfunction, which appeared to be of poor prognosis on kidney and disease evolution.

MO334 INCIDENCE OF AKI AMONG HOSPITALIZED COVID-19 PATIENTS DURING THE FIRST AND SIXTH WAVES OF THE PANDEMIC

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BACKGROUND AND AIMS: During the last 2 years, we have witnessed several waves of the COVID-19 pandemic characterized by massive infections among the general population, sudden increases in the number of hospitalizations and variable rates of complications and mortality among patients.
Acute kidney injury (AKI) has been described as a common and serious complication of COVID-19. However, multiple factors that are involved in the development of this complication have been modified throughout these months, including the appearance of new variants of the virus, the modification of treatment protocols or the advancement of vaccination among the general population.
In this study, we aimed to compare the rates of AKI among patients who required admission due to COVID-19 in the first and current (sixth) waves of the pandemic.
METHOD: Consecutive patients that required admission due to COVID-19 in a tertiary referral hospital during the first (March to May 2020) and current (December 2021) waves of the pandemic were enrolled in the study. Patient characteristics, rates of AKI incidence, 28-day mortality and in-hospital length of stay were compared between groups. Viral infection was confirmed by real-time RT-qPCR in all cases. AKI was defined according to the Kidney Disease: Improving Global Outcomes (KDIGO) guidelines using peak serum creatinine and acute dialysis criteria. Multivariate logistic regression was performed to define potential predictors of AKI.
RESULTS: Table 1 summarizes demographic and clinical characteristics among enrolled patients. Compared with the current wave, patients admitted during the first wave were older, had higher baseline serum creatinine and lower baseline eGFR. During the first wave, patients presented higher peak serum creatinine values and a higher incidence of in-hospital AKI. Age, male sex, hypertension, diabetes, CKD and pandemic wave were included in multivariate logistic regression analysis as potential predictors of AKI. Only past history of hypertension [OR 2.867; 95% confidence interval (95% CI) 1.279–6.424; *P*-value: .011] and CKD (OR 2.418; 95% CI 1.237–4.73; *P*-value: .01) independently predicted AKI in the sample.
CONCLUSION: Despite multiple changes that have occurred throughout the pandemic, including new treatment protocols, the appearance of new variants of the virus with different clinical profiles or the extensive application of vaccines, these changes have not translated into a significant decrease in the risk of AKI among patients admitted due to COVID-19, which appears to still be conditioned mainly by comorbidities of each patient, including past history of CKD.

Table 1. Comparison of patient characteristics between pandemic waves

	Overall	First Wave	Current Wave	p value
	195	127	68	
Age, years	78 (70-85)	79 (75-85)	72 (59-85)	<0,001
Male sex, n (%)	127 (65,1)	78 (61,4)	49 (61,4)	0,137
Hypertension, n (%)	140 (71,8)	95 (74,8)	45 (66,5)	0,202
Diabetes, n (%)	54 (27,7)	35 (27,6)	19 (27,9)	0,955
Cardiovascular disease, n (%)	46 (23,6)	28 (22)	18 (26,9)	0,453
Chronic lung disease, n (%)	51 (26,2)	33 (26)	18 (26,5)	0,941
Cancer, n (%)	29 (14,9)	16 (12,6)	13 (19,1)	0,223
CKD, n (%)	95 (48,7)	76 (59,8)	19 (27,9)	<0,001
Serum creatinine (baseline), mg/dL	1,06 (0,82-1,36)	1,1 (0,83-1,46)	0,99 (0,81-1,19)	0,025
eGFR (baseline), ml/min/1,73 m2	61 (47-82)	56 (44-76)	74 (57-89)	<0,001
Serum creatinine (peak), mg/dL	1,28 (0,97-1,95)	1,4 (1,05-2,07)	1,12 (0,87-1,52)	0,024
AKI (any stage), n (%)	77 (39,5)	57 (44,9)	20 (29,4)	0,035
AKI (stage 2 or 3), n (%)	18 (9,2)	14 (11)	4 (5,9)	0,237
In-hospital death, n (%)	76 (39)	55 (43,3)	21 (30.9)	0,09
ICU admission, n (%)	20 (10,3)	10 (7,9)	10 (14,7)	0,134
Length of stay, days	12 (7-19)	11 (7-17)	13 (7-22)	0.063

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REACHING SCR 4.0 MG/DL, THE MAGICAL NUMBER FOR KDIGO-2012 AKI STAGE 3. IS IT ADEQUATE FOR STRATIFYING SEVERITY OF ACUTE ON CHRONIC KIDNEY DISEASE?

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BACKGROUND AND AIMS: Reaching a SCr ≥ 4 is one criterion of classification for stage 3 in the KDIGO-2012 AKI guidelines. No previous study has challenged this arbitrary cut point by comparing its performance on how patients with pure AKI (pAKI) versus acute on chronic kidney disease (AoCKD) reach that 'magical number', and how it affects the prognosis.

METHOD: Retrospective study of patients with AKI, classified according to the KDIGO-2012 guidelines. We analysed a sub-group of patients that reached a maximum SCr ≥ 4 and divided them in pAKI (basal eGFR ≥ 60) and AoCKD (≥15–≤59). We evaluated epidemiological and clinical variables, and compared the clinical outcomes needed for HD, in-hospital mortality and HD dependence at discharge. As 21 (6%) of AoCKD individuals already had a basal SCr ≥ 4.0, they were excluded in the analysis.

RESULTS: A total of 492 individuals met the inclusion criteria: 341 (69%) in the AoCKD group. Individuals in this group were older and had a higher Charlson's index. Table 1A summarizes the comparison of clinical characteristics, all patients in the pAKI group reached a four SCr with a rate of SCr increments ≥ 3×. We found no statistically significant difference in in-hospital mortality and the need for HD. The AoCKD group was more dependent on HD at discharge (Table 1B). Figure 1 shows the rate of SCr increments by which individuals reached > 4.0 mg/dL.

Characteristic	AKI (151)	AoCKD (341)	P Value
Table 1 A			
Age - years	69 ± 14	75 ± 12	<0.001
Sex	108 (72)	253 (74)	0.30
DM	43 (29)	167 (49)	<0.001
Hypertension	115 (76)	315 (92)	<0.001
Charlson´s Index	3.7 ± 2.5	5.2 ± 2.2	0.02
Community Acquired	102 (68)	254 (75)	0.07
Medical Unit	91 (60)	238 (70)	0.03
ICU	42 (28)	60 (18)	0.008
Rate of SCr Increment			
1.5–1.9x or SCr ≥0.3	0 (0)	82 (24)	<0.001
2.0–2.9x	0 (0)	138 (40)	<0.001
≥3.0x	151(100)	124 (36)	<0.001
Table 1 B			
Results			
Rate SCr Increment	8.3 ± 4.7	2.9 ± 1.7	<0.001
Time Nephr Cons	5.7 ± 6.5	3.9 ± 3.9	<0.001
LOS	20 ± 17	18 ± 16	0.13
Need for HD	46 (31)	79 (23)	0.06
HD Dependence	7 (5)	39 (11)	0.02
Mortality	42 (28)	112 (33)	0.16

Figure 1