EDITORIAL COMMENT

Ckj consolidation among Q1 Urology and Nephrology journals

Alberto Ortiz1,2

1IIS-Fundación Jiménez Díaz, Department of Medicine, School of Medicine, Universidad Autónoma de Madrid, Madrid, Spain and 2Red de Investigación Renal (REDINREN), Instituto Carlos III-FEDER, Madrid, Spain

Correspondence to: Alberto Ortiz; E-mail: aortiz@fjd.es

ABSTRACT

The Clinical Kidney Journal (ckj) impact factor from Clarivate’s Web of Science for 2019 was 3.388. This consolidates ckj among journals in the top 25% (first quartile, Q1) in the Urology and Nephrology field according to the journal impact factor. The manuscripts contributing the most to the impact factor focused on chronic kidney disease (CKD) epidemiology and evaluation, CKD complications and their management, cost-efficiency of renal replacement therapy, pathogenesis of CKD, familial kidney disease and the environment–genetics interface, onconephrology, technology, SGLT2 inhibitors and outcome prediction. We provide here an overview of the hottest and most impactful topics for 2017–19.

Keywords: bibliometrics, chronic kidney disease, familial kidney disease, impact factor, onconephrology

Eighteen months ago, Clinical Kidney Journal (ckj) had not yet received an official impact factor; however, it could be estimated from data available at Clarivate’s Web of Science database that the estimated journal impact factor percentile in the Urology and Nephrology field in 2017 would have been just under 75%, an increase from an estimated value below the 10th percentile in 2013 [1]. As of July 2020, ckj has already received two official impact factor values from Clarivate’s Web of Science: 2.975 in 2018 and 3.388 in 2019, both of them placing ckj in the first quartile (Q1), that is, in the top 25% of journals in the Urology and Nephrology field, for 2 years in a row. This will help ckj accomplish its mission to be a reference source for high-quality translational nephrology. Given the rapid pace of scientific advances, the publication of updated ckj reviews will be emphasized and authors are welcomed to provide suggestions for invited reviews. As an example, 46 497 publications on COVID-19 were listed in PubMed as of 27 August 2020. The only way to apprehend such a huge amount of information is for experts to condense it into critical, updated and user-friendly reviews.

What were the most impactful topics published recently that contributed most to the ckj impact factor? These are listed in Tables 1–3 for the recent years [2–41]. Overall, they can be grouped into a relatively short list of topics: chronic kidney disease (CKD) epidemiology and evaluation, CKD complications and their management, cost-efficiency of renal replacement therapy, pathogenesis of CKD, familial kidney disease and the environment–genetics interface, onconephrology, technology, SGLT2 inhibitors and outcome prediction.

KIDNEY DISEASE EPIDEMIOLOGY AND EVALUATION

Every year, ckj publishes the European Renal Association – European Dialysis and Transplant Association registry report, a
Table 1. Top cited 2017 manuscripts contributing to the 2019 impact factor ordered by annualized citations

| Rank | Title (reference) | Authors | Issue | Citations per year |
|------|-------------------|---------|-------|-------------------|
| 1    | The European Renal Association – European Dialysis and Transplant Association Registry annual report 2014: a summary ([2]) | Pippias et al. | April 2017 | 15 |
| 2    | Current evidence on the discontinuation of eculizumab in patients with atypical haemolytic uraemic syndrome ([3]) | Macia et al. | June 2017 | 12 |
| 3    | 2017 update on pain management in patients with chronic kidney disease ([4]) | Pham et al. | October 2017 | 11 |
| 3    | Urinary peptide-based classifier CKD273: towards clinical application in chronic kidney disease ([5]) | Pontillo and Mischak | April 2017 | 11 |
| 4    | Cognitive function and advanced kidney disease: longitudinal trends and impact on decision-making ([6]) | Iyasere et al. | February 2017 | 9 |
| 5    | Age-dependent reference intervals for estimated and measured glomerular filtration rate ([7]) | Pottel et al. | August 2017 | 8 |

Table 2. Top cited 2018 manuscripts contributing to the 2019 impact factor ordered by annualized citations

| Rank | Title (Reference) | Authors | Issue | Citations per year |
|------|-------------------|---------|-------|-------------------|
| 1    | The European Renal Association – European Dialysis and Transplant Association registry annual report 2015: a summary ([8]) | Kramer et al. | February 2018 | 33 |
| 2    | The potential for improving cardio-renal outcomes by sodium-glucose co-transporter-2 inhibition in people with chronic kidney disease: a rationale for the EMPA-KIDNEY study ([9]) | Herrington et al. | December 2018 | 31 |
| 3    | Risk factors associated with post-kidney transplant malignancies: an article from the Cancer-Kidney International Network ([10]) | Sprangers et al. | June 2018 | 12 |
| 4    | Cost of hemodialysis in a public sector tertiary hospital of India ([11]) | Kaur et al. | October 2018 | 11 |
| 4    | Frailty and chronic kidney disease: current evidence and continuing uncertainties ([12]) | Nixon et al. | April 2018 | 11 |
| 5    | What do epidemiological studies tell us about chronic kidney disease of undetermined cause in Meso-America? A systematic review and meta-analysis ([13]) | González-Quiroz et al. | August 2018 | 10 |
| 6    | A comparative analysis of survival of patients on dialysis and after kidney transplantation ([14]) | Kaballo et al. | June 2018 | 9 |
| 7    | Evaluation of the efficacy of a medium cut-off dialyser and comparison with other high-flux dialysers in conventional haemodialysis and online haemodiafiltration ([15]) | García-Prieto et al. | October 2018 | 8 |
| 8    | Emerging targeted strategies for the treatment of autosomal dominant polycystic kidney disease ([16]) | Weimbs et al. | December 2018 | 7 |
| 8    | Capillary rarefaction from the kidney point of view ([17]) | Afsar et al. | June 2018 | 7 |
| 8    | Clinical and diagnostic features of Barter and Gitelman syndromes ([18]) | Walsh et al. | June 2018 | 7 |
| 9    | Do kidney transplantations save money? A study using a before-after design and multiple register-based data from Sweden ([19]) | Jarl et al. | April 2018 | 6 |
| 9    | Clinical and pathological phenotype of genetic causes of focal segmental glomerulosclerosis in adults ([20]) | Lepori et al. | April 2018 | 6 |
| 9    | Extracorporeal shock wave lithotripsy versus flexible ureterorenoscopy in the treatment of untreated renal calculi ([21]) | Fankhauser et al. | June 2018 | 6 |
| 9    | Management of autosomal-dominant polycystic kidney disease-state-of-the-art ([22]) | Müller and Benzing | December 2018 | 6 |
| 10   | International Society of Nephrology’s 6by25 initiative (zero preventable deaths from acute kidney injury by 2025): focus on diagnosis of acute kidney injury in low-income countries ([23]) | Raimann et al. | February 2018 | 5 |
| 10   | MicroRNAs: a new avenue to understand, investigate and treat immunoglobulin A nephropathy? ([24]) | Selvaskandan et al. | February 2018 | 5 |
| 10   | Causes and predictors of mortality in biopsy-proven lupus nephritis: the Sarawak experience ([25]) | Teh et al. | February 2018 | 5 |
| 10   | Patterns of progression of chronic kidney disease at later stages ([26]) | Caravaca-Fontán et al. | April 2018 | 5 |
| 10   | Porphyria and kidney diseases ([27]) | Pallet et al. | April 2018 | 5 |
major reference for renal replacement therapy epidemiology [2, 8, 28]. Furthermore, recent highly cited manuscripts have addressed the evaluation of CKD. This ranges from proposed age-dependent reference intervals for estimated and measured glomerular filtration rate [7] to novel urinary peptidomics biomarkers such as CKD273 that may allow an earlier diagnosis of CKD. A further manuscript clarified the concept of CKD for wider audiences, in response to a New England Journal of Medicine clinical trial report in which 100% of participants appeared to have CKD, although in most of them it was G1/G2—without further evidence of kidney damage [31, 42, 43]. Additionally, ckj collaborated with the International Society of Nephrology by publishing its Oby25 initiative [zero preventable deaths from acute kidney injury (AKI) by 2025] manuscript focused on diagnosis of AKI in low-income countries [23].

**CKD COMPLICATIONS AND THEIR MANAGEMENT**

Top-cited articles also included those related to CKD complications, such as cognitive function [6] and frailty [12], as well as management of complications such as pain [4] and anaemia [32, 38]. Anaemia management focused on early clinical trials the novel drug family of oral hypoxia-inducible factor activators, such as daprodustat [32, 38].

**COST-EFFICIENCY OF RENAL REPLACEMENT THERAPY**

Cost-efficiency focused on renal replacement therapy was another highly cited topic. The cost of public sector haemodialysis in India [11], the relative cost of haemodialysis versus transplantation in Sweden [19] and the survival advantage afforded by dialysis and transplantation [14] were addressed.

**PATHOGENESIS OF CKD**

The pathogenesis of CKD was addressed from two different points of view. On one hand, the role of miRNA in immunoglobulin A (IgA) nephropathy was discussed [24]. We should remember that clinical trials of anti-miR, drugs targeting miRNAs and specifically miR21, are ongoing in another haematuric nephropathy (Alport syndrome [44]). A second manuscript addressed capillary rarefaction, the pathogenic mechanism facilitating CKD progression through hypoxia that is activated very early in CKD and following AKI [17].

**FAMILIAL KIDNEY DISEASE AND THE ENVIRONMENT–GENETICS INTERFACE**

Familial nephropathies were well-represented among highly cited manuscripts. This likely reflects two ongoing revolutions: the arrival of the genomic era in the field of Nephrology, which is increasing the diagnosis of familial nephropathies even in patients not previously suspected to have a genetic kidney disease [45], and the treatment revolution, in which the orphan disease policy favours the development of therapies for rare diseases, such as familial nephropathies.

Topics addressed include genetic causes of focal segmental glomerulosclerosis in adults [20], Barter and Gitelman syndromes [18] and kidney diseases in porphyria [27]. A successful clinical trial of the RNAi therapeutic givosiran for acute
interrupted porphyria was recently reported [46]. Kidney disease was one of the main themes in the trial, as givosiran may be associated with kidney disease deterioration despite improving porphyria symptoms.

Therapy for familial nephropathy was also addressed, including evidence on the discontinuation of eculizumab in patients with atypical haemolytic uraemic syndrome [3], the state of the art of the management of autosomal-dominant polycystic kidney disease [22] and emerging targeted therapeutic strategies for autosomal-dominant polycystic kidney disease [16].

Some topics lie at the interface of genetic predisposition and environmental factors such as CKD of undetermined cause in Meso-America [13], for which both a familial incidence and potential environmental factors have been suggested [47], and congenital kidney and urinary tract anomalies [33], for which both genetic and environmental causes have been characterized.

**ONCONEPHROLOGY**

Oncophelrophy was well-represented. One of the highest cited manuscripts addressed the kidney toxicity associated with pembrolizumab, a monoclonal antibody targeting the programmed cell death protein 1 receptor of lymphocytes, thereby enhancing the anti-tumour immune response and potentially, autoimmunity [29]. An additional manuscript addressed the risk factors associated with post-kidney transplant malignancies [10]. A further study did not directly address oncophelrophy but rather the systemic impact on the kidney of intravitreal anti-vascular endothelial growth factor strategies, a local adaptation of drugs initially designed to be used systemically for cancer therapy [36].

**TECHNOLOGY**

Technology was also addressed in highly cited manuscripts. Both the impact of novel median cutoff dialysers [15] and the relative role of extracorporeal shock wave lithotripsy versus flexible ureterorenoscopy as first-line approach to renal calculi [21] were reported.

**SGLT2 INHIBITORS**

SGLT2 inhibitors may be the most significant advance in kidney protection and treatment of CKD and its cardiovascular complications in 30 years [48]. Highly cited SGLT2 manuscripts dealt with the results of the CREDENCE trial of canagliflozin for diabetic kidney disease as compared with the impact of atrasentan in another highly publicized trial [30], as well as with the rationale for EMPA-KIDNEY, a clinical trial that will address the efficacy of empagliflozin in non-diabetic CKD [9]. A further manuscript addressed the benefits of SGLT2 inhibitors beyond glucose control [41].

**OUTCOME PREDICTION**

Finally, a further set of highly cited studies focussed on outcome prediction in different kidney disease contexts. One study focused on causes and predictors of mortality in biopsy-proven lupus nephritis [25]. The different patterns of progression of later stages of CKD were also characterized [26], as well as the relationship between obesity, the new adipokine C1q/tumour necrosis factor-related protein-1 and CKD progression [35]. Use of machine-learning algorithms was explored to predict poor outcomes in hypertensive patients based on blood pressure variability [37]. Another text studied the usefulness of antiphospholipase 2 receptor levels to predict complete spontaneous remission in untreated membranous nephropathy, and thus to help in initial decision-making regarding initiation of immunosuppressive therapy [39]. The last highly cited manuscript assessed whether the presence of active tubulointerstitial nephritis in non-scared renal cortex improved prediction of renal outcomes in IgA nephropathy [40].

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**CONFLICT OF INTEREST STATEMENT**

A.O. is CKJ Editor-in-Chief.

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