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## **The top fifty articles about Artificial intelligence with kidney disease**

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**Objectives:** Recently, artificial intelligence (AI) comes in our lives deeply and takes many roles in various fields. By analyzing past trends of AI in nephrology fields with bibliography during 30 years, we want to know the current status and the future directions of clinical research.

**Methods:** The journals were searched by using the Institute for Scientific Information database available under the banner of the Web of Science using by the key words with artificial intelligence, deep learning, machine learning and kidney (or renal). Next, the authors manually reviewed the articles and then publications with human data only, renal oriented subject were selected for sorting the most cited top 50 articles.

**Results:** Among the total 444 publications, 287 publications were selected. There were 52 articles within the top 50s. The total cited number of top 50s was 1,248. The highest cited number was 83 and lowest cited number was 12. During 30 years, 42 articles were published after 2010s. The top ranked article was about cancer proteome by Korean authors and article about cell transcription by USA authors was followed by 83 cited times. Within top 50s, the first authors' affiliations were USA (17), Turkey (4), Korea (3), Singapore (3), Germany (3) and the rest. The main subjects were about radiologic image (11), acute kidney injury (11), dialysis (5), kidney transplant (5), chronic kidney disease (3), glomerular nephritis (3), nephrotoxicity (3), and others (12).

**Conclusions:** The era of big data and computing system facilitate clinical use of AI in medical fields. After 2010s, interest and works about AI was increased dramatically. During the past, AI was investigated based on data relatively easy to access such as radiologic image and laboratory results. The more deep and wide range of information will make it possible the use of AI in the diverse nephrology fields.