

Chapter 13

Research Contributions on Nephrology During 2010–2015: A Scientometric Approach

Radhakrishnan Natarajan
Periyar University, India

ABSTRACT

Nephrology is the adult and pediatric study of the kidneys and associated diseases. This chapter deals with the research productivity on Nephrology. Since the study is based on scientometric approach, the data has been retrieved from Web of Science database. The objectives of the study are: to identify the growth rate of research productivity, to trace the types of documents in Nephrology, to know the authorship pattern and language wise classification, and to find out the institution and geographical area wise distributions. Software packages such as Histcite and VOSviewer have effectively been used to analyze the data. In addition, various scientometric tools were also applied. As far as the contribution is concerned, the USA leads other parts of the world in Nephrology. English language dominates the globe in terms of publications.

INTRODUCTION

In 1969, Vassily V. Nalimov and Z. M. Mulchenko coined the term ‘naukometriya’, the Russian equivalent to the word scientometrics (Nalimov & Mulchenko, 1969). The word has been used for the study of all aspects of scientific literature of science and technology. The term had gained a wide recognition by the foundation (1978) of the journal *Scientometrics* by Tibor Braun, Hungary. Most of scientometric studies were indistinguishable from bibliometrics. The immediate and tangible output of science and technology is literature into a public domain in the form of papers, patents, etc. The focus of bibliometrics, despite many wide-ambit definitions, has always been preponderantly on the literature of Science and scholarship. There are many aspects for scientometricians to measure and analyze than the literature output; e.g., the practices of researchers, the socio-organizational structures, research and development management, the role of science and technology in the national economy and governmental policies.

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NEPHROLOGY

Nephrology is the adult and pediatric study of the kidneys and associated diseases. The Nephrologists deal with the diagnosis and management of kidney related diseases. Kidneys are vital for maintaining normal fluid and electrolyte balance in a human body. The following is the list of kidney disorders.

- Fluid and electrolyte disorders
- Acid-base disorders
- Kidney stones
- Glomerular diseases
- Tubulointerstitial diseases
- Mineral metabolism
- Acute kidney disease
- Acute renal failure
- Chronic kidney diseases
- Chronic renal failure
- End stage renal disease and dialysis

Physicians need to be aware of medications and clinical pharmacology, high blood pressure diabetes management and its complications, epidemiology of diseases and infections as well as nutritional management for prevention and treatment of kidney related diseases.

RELATED STUDIES

Nadim Akhtar khan (2015) examined the research productivity of Government Medical College, Jammu and provided a bibliometric profile of biomedical publications of institute. Bibliometric indicators were employed to assess the trends and volume of research published. Publications by researchers and practitioners of Government Medical College, Jammu (1973 to 2011) are indexed in Scopus database. Results showed that the Government Medical College, Jammu was accelerating in terms of output. A total of 514 publications were contributed by the Institute during the study period. Highly productive departments are general medicine, pharmacology, surgery and pathology with 97 (18.87%), 69 (13.42%), 46 (8.95%) and 39(7.59%) publications respectively. The majority of publications were contributed by multi-authors (470, 91.44%). The most highly cited departments are Pediatrics, Endocrinology and Dermatology with average citations of 4.28%, 3.5% and 3.38% respectively. In addition, the study has focused on research for improving the health of individuals in the vicinity.

Mulla (2012) has described the bibliometric analysis of 998 articles on Information Science and Scientometrics (ISS) that appeared in different journals during the period 2005-2009. The study revealed that, most of the researchers have preferred to publish their research results in journals; as such 91.98% of articles were published in journals. More number (32.97%) of articles was published in 2009. The authorship trend showed that, out of 1,703 authors who contributed a total of 998 articles, out of which more number of (376, 40.96%) articles was contributed by two authors (25 papers each). The degree

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