

# Prevalence of Distress Financing and Catastrophic Health Expenditure among end Stage Renal Disease Patients Attending A Tertiary Care Teaching Hospital of North India

Abas Khan\*, Farooq A Jan and Haroon Rashid

Department of Hospital Administration, SKIMS, Srinagar, India

\*Corresponding author: Abas Khan, Department of Hospital Administration, SKIMS, Srinagar, India



## ARTICLE INFO

**Received:**  December 07, 2020

**Published:**  December 15, 2020

**Citation:** Abas K, Farooq A Jan and Haroon R. Prevalence of Distress Financing and Catastrophic Health Expenditure among end Stage Renal Disease Patients Attending A Tertiary Care Teaching Hospital of North India. Biomed J Sci & Tech Res 32(4)-2020. BJSTR. MS.ID.005275.

## ABSTRACT

Chronic kidney disease (CKD) is a worldwide public health problem, both for the number of patients and the cost of treatment involved. A retrospective study of 2 years was conducted among CKD Stage-V (End stage renal disease) patients admitted in nephrology wards, those undergoing dialysis and kidney transplantation in SKIMS between 1<sup>st</sup> October 2015 and 30<sup>st</sup> September 2017. The prevalence of catastrophic health expenditure on ESRD patients was 95% in our retrospective study. The prevalence of distress financing on ESRD patients was 70% in our both retrospective studies.

**Keywords:** End Stage Renal Disease; Health; Distress; Financing, Expenditure

## Introduction

Chronic Kidney Disease (CKD) is a worldwide public health problem, both for the number of patients and the cost of treatment involved. In India, it is reported that the progression of CKD to End Stage Renal Disease (ESRD) is rapid due to the factors such as lack of medical facilities, poor control of risk factors and delayed referral to nephrologists [1]. The prevalence of CKD and ESRD are estimated at 7852 and 1870 per million respectively [2,3]. In India, the number of deaths due to ESRD was 3.78 million in 1990 (40.4% of all death) and is expected to increase up to 7.73 million in 2020 (66.7% of all death) [4]. It is estimated that only 10-20% of ESRD patients in India continue long term Renal Replacement Therapy (RRT). It is estimated in India in 1 year, there are 3,500 new renal transplants + 3,000 new Continuous Ambulatory Peritoneal Dialysis (CAPD) initiation + 15,000 new Maintenance Hemodialysis (MHD) patients [5].

Limited resources for health care and lack of protection against catastrophic health spending have led to over-reliance on Out of

Pocket (OOP) health expenditure in India [6]. This in turn results in exposure to high financial risk, which pushes patients and their families into catastrophic poverty following diagnosis of life consuming diseases like cancer & ESRD [7]. With this background, the present study was undertaken with the prevalence of distress financing and catastrophic health expenditure among ESRD patients.

## Aims and Objectives

To Study prevalence of distress financing and catastrophic health expenditure among ESRD patients attending SKIMS.

## Material and Methods

### Study Design and Duration

A retrospective study of 2 years was conducted among CKD Stage-V (End stage renal disease) patients admitted in nephrology wards, those undergoing dialysis and kidney transplantation in SKIMS between 1<sup>st</sup> October 2015 and 30<sup>st</sup> September 2017.

## Sampling

Using simple random sampling, 20% of the patients admitted in nephrology wards, those undergoing dialysis and kidney transplantation in SKIMS.

## Study Tool

After obtaining the list of patients admitted in nephrology wards, those undergoing dialysis and kidney transplantation in SKIMS, the patients were contacted, consent taken from them after explaining the scope and purpose of study and were subjected to a questionnaire which was pretested by conducting a pilot study. The response rate was 86%. Out of pocket expenditure, catastrophic health expenditure and distress financing was studied.

## Exclusion Criteria

Those patients who refuse to participate in the study were excluded from the study

## Statistical Analysis

Data was analyzed with the help of SPSS software (version 23.0). All the categorical data was shown in the form of frequency and percentages & continuous data was shown in the form of averages and standard deviations.

## Results

A total of 200 patients were studied.

## Distress Financing

It is defined as borrowing from family/friends, selling possessions, or taking out loans to fund expenditure of the disease (Table 1).

**Table 1.**

Sources of finances	Frequency(n=200)
Selling assets	125(62.5%)
Borrowing	140(70.00%)
Prevalence	70.00%

## Catastrophic Health Expenditure

**Table 2:** Showing Monthly Income in Rupees.

Monthly income in rupees	Frequency(n=200)
1000-2000	125
2001-5000	35
>5000	40
Total	200

In our study we used definition of Catastrophic health expenditure: monthly out of pocket expenditure > 25% of monthly household income. It was observed that 80% of the patients had monthly income less than or equal to 5000 rupees while 85% of

the patients had monthly health expenditure more than fifteen thousand rupees. Overall prevalence of catastrophic health expenditure was found to be 95% (Tables 2,3).

**Table 3:** Showing Monthly expenditure in Rupees.

Monthly income in rupees	Frequency(n=200)
<15000	30
15001-30000	150
>30000	20
Total	200

## Discussion

Health care delivery in India is going through a process of transition, more so the tertiary specialty care of chronic diseases like diabetes, hypertension, cardiac diseases, kidney or liver failure, mental illness and cancer. Patients, more commonly those from the lower economic strata, have difficulty in availing the health care services because of the costs involved in diagnostic and curative procedures. Even in public hospitals where the cost of care is low, patient had to bear several direct and indirect costs, commonly referred to as out-of-pocket expenditure (OOPE), which impoverish them further. As a result, patients with life threatening diseases requiring tertiary care often go untreated even if they are aware of the availability of high-quality services. It can also lead to delay in diagnostic and curative procedures and even causing deaths of several thousands of poor patients. This issue has been a concern for nation's health policy, which should address the cost, quality and accessibility of health care [8].

The prevalence of catastrophic health expenditure on ESRD patients was 95% in our retrospective study and 96% in our prospective study. Christina Bradshaw et al in their study reported that 91% of ESRD patients had catastrophic health expenditure [9]. Gunjeet Kaur et al reported in their study catastrophic health expenditure in 40-50% patients [10]. The prevalence of distress financing on ESRD patients was 70% in our both retrospective and prospective studies. Christina Bradshaw et al in their study reported that 77% of ESRD patients had distress financing [9]. The study by Gunjeet Kaur et al reported that 60% patients had distress financing [10].

## Conclusion

Chronic kidney disease (CKD) is a worldwide public health problem, both for the number of patients and the cost of treatment involved. The prevalence of catastrophic health expenditure on ESRD patients was 95% in our retrospective study. The prevalence of distress financing on ESRD patients was 70% in our both retrospective studies.

## Conflict of Interest

None

## Source of Funding

None

## Ethical Clearance

Taken

## References

1. Ballal HS (2007) The burden of chronic kidney disease in a developing country, India. *Ouest* 9: 12-19.
2. Agarwal SK, Dash SC, Irshad M, Raju S, Singh R, et al. (2005) Prevalence of chronic renal failure in adults in Delhi, India. *Nephrol Dial Transplant* 20(8): 1638-1642.
3. Mani MK (2003) Prevention of chronic renal failure at the community level. *Kidney Int Suppl* 63(83): S86-S99.
4. Modi GK, Jha V (2006) The incidence of ESRD in India: A population based study. *Kidney Int* 70(12): 2131-2133.
5. Agarwal SK, Srivastava RK (2009) Chronic kidney disease in India: challenges and solutions. *Nephron Clin Pract* 111(3): c197-203.
6. Dielman J, Campbell M, Chapin A, Eldrenkamp E, Fan VY, et al. (2017) Evolution and patterns of global health financing 1995-2014: development assistance for health, and government, prepaid private, and out of pocket health spending in 184 countries. *Lancet* 389(10083): 1981-2014.
7. Shahrawat R, Rao KD (2012) Insured yet vulnerable: out of pocket payments and India's poor. *Health Policy Plan* 27(3): 213-221.
8. Mohanti BK, Sanghamitra Das, Kuldeep S, Soumitra D (2011) Estimating the economic burden of cancer at a tertiary public hospital: a study at the All India Institute of Medical Sciences (Doctoral dissertation, Utkal University).
9. Bradshaw C, Gracious N, Narayanan R, Narayanan S, Safeer M, et al. (2019) Paying for hemodialysis in Kerala, India: A description of Household Financial Hardship in the Context of Medical Subsidy. *Kidney Int Rep* 4(3): 390398.
10. Kaur G, Prinja S, Ramachandran R, Malhotra P, Gupta KL, et al. (2018) Cost of hemodialysis in public sector tertiary hospital of India. Oxford University Press on behalf of ERA-EDTA. *Clinical Kidney Journal* 11(5): 726-733.

ISSN: 2574-1241

DOI: 10.26717/BJSTR.2020.32.005275

Mohammed Sarwar. Biomed J Sci & Tech Res



This work is licensed under Creative Commons Attribution 4.0 License

Submission Link: <https://biomedres.us/submit-manuscript.php>



### Assets of Publishing with us

- Global archiving of articles
- Immediate, unrestricted online access
- Rigorous Peer Review Process
- Authors Retain Copyrights
- Unique DOI for all articles

<https://biomedres.us/>