

**Abstract Type : Poster**

**Abstract Submission No. : PO-1475**

## **A comparative assessment of cost-effectiveness of dialysis modalities in the Asia-Pacific region**

**Md Salman Hussain**<sup>1</sup>, Md Sarfaraj Hussain<sup>2</sup>, Abul Kalam Najmi<sup>3</sup>

<sup>1</sup>Department of Pharmaceutical Medicine, Jamia Hamdard, India

<sup>2</sup>Department of Pharmacognosy, Sanskriti University, India

<sup>3</sup>Department of Pharmacology, Jamia Hamdard, India

**Objectives:** Patients with end-stage renal disease on dialysis faces major economic burden. However economic burden varies from hemodialysis to peritoneal dialysis. Cost-effectiveness analysis (CEA) studies showed variable findings. So, the aim of this study is to establish which dialysis modality is cost-effective.

**Methods:** We searched PubMed, Embase and Cochrane database for studies assessing the cost-effectiveness of hemodialysis or peritoneal dialysis. Study search period was from inception to till February 2019. We captured the following information from each eligible study: study design, study model, study perspective, time horizon, discount rate, cost including incremental cost-effectiveness ratio (ICER) and sensitivity analysis. Study quality was assessed using the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) criteria.

**Results:** Only four CEAs qualified the inclusion criteria after the screening of retrieved articles in the first and second pass. Included CEAs were conducted in Indonesia, Malaysia, Norway, and Singapore. All of the included studies used a Markov model except one study (Hooi et al.). Included CEAs adopted societal perspective (2 studies), healthcare provider perspective (1 study) and healthcare funder perspective (1 study). Time horizon varies from 5 years to lifetime horizon with a discount rate of 3% to 5%. Two studies followed the CHEERS criteria. Total cost according to the societal perspective was 49825.44\$ for peritoneal dialysis (PD) and 52593.92\$ for hemodialysis (HD). In contrary, total cost as per healthcare provider perspective was 48175.18\$ for PD and 48054.89\$ for HD. ICER of HD was lower as compared to ambulatory PD (71442.63\$ vs 111099.47\$) in one study and higher in another study (ICER of 14769\$/QALY for HD and 13770USD/QALY for PD).

**Conclusions:** The current CEA shows inconsistent result for the available dialysis modalities. However, to drawn definitive conclusion individual country-specific studies are required.