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IIT-B scientists develop special membrane that cuts dialysis cost, time by half

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Singapore: Scientists at the Indian Institute of Technology- Bombay, India have developed a unique membrane that can effectively reduce dialysis time and cut costs to almost 50 percent. The technology is also thought to spur the development of wearable dialyzers.

An AIIMS study highlighted that 90 percent of kidney patients in India die as they cannot afford the huge cost for a dialysis. The students at IIT-B's chemical engineering department is confident that the current scenario can change with their unique innovation.

The hollow-fiber membrane developed by them has completed laboratory tests and awaits pre-clinical trials. The product has also procured an Indian patent and also an indigenous, low-cost pilot plant for production of these membranes has been functioning for the last two years.

Mr Jayesh Bellare, who leads the IIT team, said, "This new membrane promises faster, efficient dialysis with less side effects at a significantly lower cost."

The membrane developed by the IIT is a key component of the filter and removes impurities from the blood during hemodialysis thus improving performance in terms of separation and bio compatibility.

It also permits faster treatment, lesser side reactions and could spur the innovation of novel devices such like portable or wearable dialyzers.