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Max Healthcare revolutionises dialysis through CDS 3

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CDS 3 combines the process of the creation and supply of dialysis water and dialysis fluid to achieve high levels of purity. It also has the advantages of streamlined operation that improves efficiency and reduces human error



Max Healthcare have introduced the Central Delivery System 3 (CDS 3) for the first time in India.

Central Delivery System 3 (CDS 3) CD 3 is a fully automated online dialysis system that ensures delivery of ultrapure fluid with accurate mixing while requiring minimal maintenance. This system has been developed in association with Fresenius Medical Care.

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Water Treatment: The purity level of the water being used is a crucial factor in determining the quality of the dialysis fluid. CDS 3 ensures that the water is properly treated through reverse osmosis (RO) and the purest output is utilized for dialysis.

Accurate Mixture: CDS 3 enables accurate mixing of the dialysate components at the precise point in time to remove any chances of precipitation. After this, 1 part of dialysate is mixed with 34 parts of water to prepare the dialysis fluid. It also eliminates chances of human error as the components can be mixed in exact required quantities thereby improving the quality of the resulting fluid.

Media Rail Supply (MRS): Seamless delivery of the dialysate liquid is as important as the accuracy of the mixture. CDS 3 system employs Media Rail Supply that facilitates the transfer of the final dialysis fluid straight to the dialysis machine. This removes the need of cannisters thereby increasing efficiency & hygiene of the procedure and lowering the adverse impact on the environment.

ISO Standards: CDS 3 system meets the highest ISO standards 13959:2014, 13958:2014 and 23500:2014. Complying to these standards, CDS 3 reduces any complications related to dialysis.

Benefit to the patient: Patients suffering from chronic kidney diseases are dependent on dialysis procedure, multiple times a week, to sustain a long and productive life. CDS 3 system ensures no impurities are present in the dialysate fluid that translates into better health of the patient. CDS 3 does not incur any additional cost as compared to the traditional dialysis method. In the long run, CDS 3 can help in lowering the cost per treatment. It also provides flexibility to adjust the balance of the fluid according to each patient, including potassium or glucose-free etc.

Disinfection: CDS 3 system utilizes hot feed of treated water (heated to 85OC) to disinfect the machine in place of chemicals that were used earlier.

Environment Sustainability

Reduced Waste: The current dialysis system involves usage of cannisters to carry dialysate fluid that are disposed after single use. Utilizing Media Rail Supply mechanism, CDS 3 reduces the burden on environment by decreasing medical waste substantially.

Water Conservation: The CDS 3 water treatment system works at an efficiency of 75%. Rest of the 25% water is not wasted but utilized for horticulture purposes.

Emphasizing on the importance of improving the quality of dialysis procedure, Dr. Dinesh Khullar, Chairman - Nephrology & Renal Transplant Medicine, Max Healthcare, said, “One of the key concern areas for safety of dialysis patients across the world has always been the concentrate quality and supply. CDS 3 helps in safer and convenient dialysis practices with automation enabled in the system that stores data and helps prevent failures. As the technology continues to drive the progress in healthcare, the traditional line between engineering and medical science grows ever thinner.”

“With the machines and the computers that power them becoming smaller, faster and smarter, the medical device industry is making medical practice easier for doctors, more effective and affordable for patients, and convenient for the entire healthcare system. CDS 3 is the next big step in substantially improving the quality of dialysis and hence, the lives of our patients. The effectiveness of dialysis is directly dependent on the purity and chemical mixture of the fluid being used. While we constantly strive to enhance the dialysate fluid, CDS 3 revolutionizes this aspect by maintaining highest purity of water, right balance of electrolytes and conductivity and removing human error”, he added.

Dr Khullar also said that, “At no extra cost, this system would certainly help the renal patients in living longer and fulfilling lives. We are delighted and proud to introduce this CDS 3 system in our Saket facility for the first time in the country for the benefit of our patients. This follows the introduction by Max Saket facility of top of the line dialysis modality i.e. online hemodiafiltration (OL-HDF) for the first time in the north India stamping our commitment towards bringing the best technology

in the field of dialysis for the benefit of our patients. We will continue to work towards improving technology and procedural efficiency to deliver top notch patient care.”

According to Global Burden of Disease (GBD) study 2015, chronic kidney disease (CKD) was ranked as the eighth leading cause of death. With more than 2 lakh patients being diagnosed with end-stage renal diseases in the country every year, there is an additional demand of 34 million dialysis sessions. Being a life-sustaining procedure, every improvement in the dialysis procedure would result in direct benefit to the patients and help them live a better & a longer life.