

KFSH Connects AI, Emergency Care, Robotic Surgery and Research Along the Cardiac Patient Journey

RIYADH, SAUDI ARABIA, October 21, 2026 /EINPresswire.com/ -- King Faisal Specialist Hospital and Research Centre (KFSH) is connecting artificial intelligence, emergency care, robotic surgery, and clinical research along the path a cardiac patient can take through the hospital, so that each capability hands over to the next without delay.

The journey begins before the patient arrives. KFSH's Patient Flow and Capacity Command Centre uses artificial intelligence to forecast Emergency Department demand up to 24 hours ahead, allowing staff and beds to be prepared in advance. Time from arrival to physician assessment has fallen by around 42%.



A robotic-assisted procedure at KFSH in Riyadh

For a patient with a heart attack, the next step happens in the same department. A dedicated cardiac catheterization lab inside the Emergency Department has halved the time between arrival and the reopening of a blocked artery, supported by an integrated pathway that makes KFSH Saudi Arabia's only accredited Chest Pain Center with PCI.

If heart failure advances, the options widen. KFSH performed the world's first fully robotic heart transplant in 2024 and the world's first robotic-assisted implantation of a HeartMate 3 heart pump in 2025. Ventricular assist devices and extracorporeal membrane oxygenation support critically ill patients within specialist treatment pathways.

Care continues after discharge. In a center analysis of 130 recipients of an implantable pressure sensor who completed six months of follow-up, admissions for decompensated heart failure fell by 46.4%. A round-the-clock virtual cardiac service handles urgent concerns after patients return home.

Where standard treatment reaches its limits, research opens another route. KFSH conducted nearly half of the clinical trials registered in Saudi Arabia during the first half of 2025, giving eligible patients access to investigational treatments under independent ethical and regulatory oversight.

By treating innovation as a connected journey rather than a set of separate achievements, KFSH ensures that patients benefit from each capability at the moment they need it.

King Faisal Specialist Hospital and Research Centre has been ranked first in the Middle East and Africa and 12th globally among the world's top 250 academic medical centers for 2026. It was also recognized as the most valuable healthcare brand in the Kingdom and the Middle East for 2026, according to Brand Finance, and listed by Newsweek among the World's Best Hospitals, World's Best Smart Hospitals, and World's Best Specialized Hospitals for 2026.

KFSH
Riyadh

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