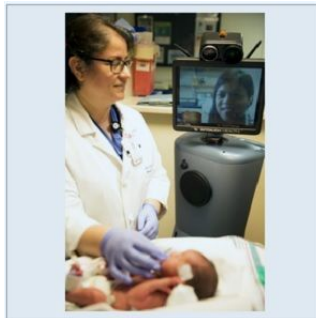


## Telemedicine First in Neonatal ICU



A Children's Hospital Los Angeles (CHLA) study, published in the *Journal of Telemedicine and Telecare*, shows that robot-assisted telemedicine could be used to perform bedside rounds and direct daily care for infants with mild-to-moderate disease. Researchers found no significant differences in patient outcomes when telemedicine — with real-time audio and video communication between a neonatal intensive care specialist and a patient — was used and noted a high level of parent satisfaction.

The research is the first published report of using telemedicine for patient rounds in a neonatal intensive care unit (NICU). "We wanted to determine if robot-assisted telemedicine could be part of daily clinical practice in order to provide care by a neonatologist where one might otherwise not be present — in remote locations, underserved communities and at times of limited staffing," said first author Arlene Garingo, MD, neonatologist at CHLA. In a previous study, the team at CHLA demonstrated the feasibility and safety of robot-assisted telemedicine in the NICU.

For this new randomised study, 20 pairs of patients were matched by age, weight, diagnosis and disease severity, with one infant from the pair assigned to either one of the two treatment groups. The first group of infants was treated by an on-site neonatologist who visited the baby at the bedside during patient rounds, while the other group was cared for by an off-site neonatologist, who performed daily evaluations of the patient using robot-assisted telemedicine.

Based on the results, there were no differences in average length of stay, age at discharge or hospital charges between the two treatment groups. In addition, nutritional needs, respiratory support, days on antibiotics, phototherapy and number of radiological studies were all the same between the two groups.

However, the researchers observed a significant difference in time spent at the bedside, "with the remote neonatologist requiring nearly twice as much time to care for the patient," said Philippe Friedlich, MD, MEpi, MBA, chief of Neonatology at CHLA and one of the study's authors. The additional time was mainly due to time required to manoeuvre the robot and issues of internet connectivity, Dr. Friedlich explained.

At the time of discharge, nearly half (45 percent) of families completed a survey about their experience. Respondents said that they were comfortable having their baby treated by an offsite neonatologist via telemedicine and would be comfortable doing it again.

Source and image credit: [Children's Hospital Los Angeles](#)

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