

Lopinavir/ritonavir delays COVID-19 recovery in paediatric patients

Early use of lopinavir/ritonavir (LPV/r) in paediatric patients hospitalised with COVID-19 infection delays recovery and increases costs, according to findings of a study published in *Pediatric Drugs*.

Recovery from COVID-19 infection was investigated in 49 infants (at least 14 days of age), children or adolescents who were admitted to hospital in Hong Kong between January 2020 and January 2021 and started on a 2-week course of LPV/r within 2 days of admission, compared with controls (884 paediatric patients who initiated LPV/r more than 2 days after admission, or did not receive LPV/r).

Early LPV/r use was associated with longer time to clinical improvement (hazard ratio [HR] 0.51; 95% CI 0.38, 0.70), hospital discharge (HR 0.51; 95% CI 0.38, 0.70) and seroconversion (HR 0.59; 95% CI 0.43, 0.80) compared with controls (all $p < 0.001$). Early LPV/r use was also associated with a longer length of stay (6.99 days; 95% CI 6.23, 7.76) and higher 30-day costs (\$11 709 vs \$8270 [US dollars]) than in controls (both $p < 0.001$).

Subgroup analysis found that early LPV/r use in patients 13 to 18 years of age had the greatest impact on overall outcomes, with significantly longer times to improvement, discharge and seroconversion (all $p < 0.001$ vs controls).

"Our study advocates the recommendation against LPV/r use for pediatric patients across age groups," said the authors.