

Experimental COVID-19 Therapies

Administration in Cases of Swallowing Difficulties

Charts updated 3 April 2020

Page 1 of 1

Please check www.covid19-druginteractions.org for updates.

No recommendation to use experimental therapy for COVID-19 is made.

Data for many agents are limited or absent; therefore, risk-benefit assessment for any individual patient rests with prescribers.

Drug	Formulation	Comments
Atazanavir alone	Capsules	Manufacturer does not recommend opening of capsules. Use oral solution if unable to swallow tablets.
	Oral solution	<ul style="list-style-type: none"> It is preferable to mix atazanavir oral powder with food such as applesauce or yogurt. However, mixing with a beverage (milk, infant formula, or water) may be used. Administer the entire dosage within one hour of preparation (the mixture may be left at room temperature during this one hour period). (Reyataz Prescribing Information , Bristol-Myers Squibb, March 2018.)
Lopinavir/ritonavir	Tablets	Manufacturer does not recommend crushing of tablets. Use oral solution if unable to swallow tablets. Exposure of lopinavir was reduced by 45% when the tablet was crushed and administered with food. (Best BM, et al. <i>J Acquir Immune Defic Syndr</i> , 2011, 58(4):385-91.) There are no data regarding crushing of tablets and administration through a NG tube. Taking into account the study by Best et al and the fact that some lopinavir/ritonavir could be adsorbed in the NG tube, doubling lopinavir/ritonavir to 800/200 mg twice daily when crushed could be considered (depending on drug availability) with monitoring of ECG.
	Oral solution	<ul style="list-style-type: none"> Administer syrup without dilution otherwise there is a risk of precipitation. Rinse the administration feeding tube with milk (not water). Contains propylene glycol (15.3%) and alcohol (42% v/v). As the oral solution contains ethanol and propylene glycol, it is not recommended for use with polyurethane feeding tubes due to potential incompatibility. Feeding tubes that are compatible with ethanol and propylene glycol, such as silicone and polyvinyl chloride (PVC) feeding tubes, can be used. As the oral solution contains alcohol, disulfiram-like reactions may occur with disulfiram or other drugs that produce this reactions (e.g. metronidazole). Coadministration is contraindicated with disulfiram or metronidazole in the SmPC due to the potential risk of toxicity from propylene glycol. (Kaletra Oral Solution Summary of Product Characteristics , October 2019. Kaletra Prescribing Information , December 2019.)
Remdesivir	IV	IV formulation – recommendations for swallowing difficulties are not applicable.
Favipiravir	Tablets	Tablets can be crushed and mixed with liquid. (Sissoko D, et al. <i>PLoS Med</i> , 2016, 13(3):e1001967.)
Chloroquine	Tablets	It is preferable to avoid crushing tablets; however, chloroquine tablets may be crushed and mixed with jam, honey, pasteurised yoghurt, or similar foods. (National Pharmacy Association, Chloroquine , July 2018.)
	Syrup	Contains propylene glycol, but no recommendations are given in the product label as to compatibility with feeding tubes. (Malarivon Summary of Product Characteristics , November 2018.)
Hydroxychloroquine	Tablets	Manufacturer does not recommend crushing of tablets. (Plaquenil Patient Information Leaflet , Zentiva, March 2018.) However, some sources suggest that tablets can be crushed and dispersed in water. (Healthline, Hydroxychloroquine oral tablet , January 2018.)
Ribavirin	Capsules	The capsules should not be opened, crushed or broken. Note: ribavirin is a known teratogen. (Rebetol Summary of Product Characteristics , February 2019. Rebetol Prescribing Information , January 2020.)
	Oral solution	Contains propylene glycol, but no recommendations are given in the product label as to compatibility with feeding tubes. (Rebetol Summary of Product Characteristics , February 2019.)
Tocilizumab	IV or SC	IV or SC administration – recommendations for swallowing difficulties are not applicable.
Interferon beta	Various	Various non-oral routes of administration are being studied - recommendations for swallowing difficulties are not applicable.