

S1 File. PICO question/ eligibility criteria

	Include	Exclude
Population	<p>Patients under suspicion of infection by clinical or epidemiological criteria at initial testing (first healthcare encounter, initial ED attendance)</p> <ul style="list-style-type: none"> • Due to clinical suspicious • Due to contact tracing 	<ul style="list-style-type: none"> • Populations assessed for discharge or at different setting to initial testing • Population screening • spiked or artificially contrived samples • Less or equal to 10 confirmed cases • Special populations: cancer patients, multiple sclerosis, pregnant women, diabetes patients, gynaecological cancer, HIV, surgical patients (pre-operative screening)
Index test	<p>RT-PCR, including alternative methods for RNA extraction and other technologies (only if fulfil other criteria)</p>	<ul style="list-style-type: none"> • Sample pooling • Machine learning
Reference standard	<ul style="list-style-type: none"> • Any RT-PCR positive finding (in a short term) • PCR plus clinical signs/symptoms • Any other criteria including PCR findings 	<ul style="list-style-type: none"> • Serological tests • rapid PCR-based tests • Clinical guideline diagnosis (e.g. WHO or China CDC) • WHO classification criteria • Consensus of experts/clinicians
Outcome	<p>False- negative cases</p>	<p>Absolute numbers without a total of COVID-19 confirmed patients, insufficient/unclear numerical information</p>
Study design	<p>observational studies (including accuracy studies, cohorts, and case series)</p>	<ul style="list-style-type: none"> • Comparative studies between types of specimens focus on concordance • Comparison of alternative methods for extraction of RNA (e.g. RT-LAMP or CRISPr technology), rapid PCR-based tests, point-of-care or near patient antigen or PCR based tests • Studies reporting only analytical sensitivity (i.e. limits of detection) or analytical specificity (e.g. cross-reactivity), also validation/development of novel assays • Mathematical modelling • Proof of concept studies