

## Systemic Reviews and Meta-Analysis of Case Series: Can we Afford to Wait for Evidence Synthesis in this COVID 19 Emergency?

Shalam Mohamed Hussain<sup>1\*</sup>, Osama Alwutayd<sup>2</sup> and Abdullah Alnafeesah<sup>2</sup>

<sup>1</sup>Independent Researcher and Former Faculty, College of Pharmacy, Qassim University, Saudi Arabia

<sup>2</sup>Unaizah College of Medicine and Medical Sciences, Qassim University, Saudi Arabia

**\*Corresponding Author:** Shalam Mohamed Hussain, Independent Researcher and Former Faculty, College of Pharmacy, Qassim University, Saudi Arabia.

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The Covid-19 pandemic, which started on November 17, 2019 in the city of Wuhan, China, today no place could escape from its tangles. So far, the covid 19 cases crossed over 21 million worldwide and it's trespassing each passing day with impunity. The deaths due to COVID 16 touched 761 779 [1]. Each and every nation is trying its own to contain it with little success so far. Meanwhile covid 19 becoming an undefeatable giant monster for both the resource rich and poor countries alike. Covid 19 has single handedly destroyed the global economy with unpredictable present and future consequences [2].

With scarce information about the effective treatment and guidelines to manage Covid 19, health care professionals and treating physicians are bearing the brunt with their own leaves. As per Amnesty's damning report against the authorities' failures world over to protect the covid 19 warriors who have been constantly being exposed, attacked and paid with their lives. However, this health emergency, on a positive, taught us the need for confinement and quarantine so as to avoid human-to-human transmission [3].

Medical practice over the years built on the body of trusted evidence and informed decision for the practitioners. Evidence-based medicine (EBM), an epitome of rational evidence-based practice links good scientific research with clinical practice. The EBM integrates patient oriented needs and preferences with the current best evidence by using existing scientific evidence and applying its results in clinical practice [4]. Among the plethora of evidences, randomized controlled trials (RCTs) stand out at the top of evidence pyramid in providing rigorous results for effectiveness of interventions or study questions. However, to synthesize evidences from RCTs and adopt them into practice is laborious, time consuming and expensive. It is also worth to note that, RCTs may not be the best or even remotely possible study design for all questions at all times. Additionally, RCTs may not always offer conclusive recommendations for the clinical practice. For example, a cross-sectional study carried to assess the conclusions of studies resulting from exhaustive and vigorous Cochrane systematic reviews of RCTs, revealed that the majority of them did not offer sufficient evidence for clinical practice and their authors called for further research and studies to conclude decisively. Alternatively, it is important to consider the best available evidence-systemic reviews and meta-analysis of case series in the context of present COVID 19 pandemic [5]. These case series offer, the potential benefits in the current circumstances such as a door for wider body of literature for outcome results, paves the way for long-term effectiveness and adverse events of interventions for COVID 19 and provide insight into success or failure of interventions. Generally, case reports and case series lay low with respect to evidence generation and decision-making processes with the hard-core lobbyist for statistical significance and study power. Realizing the current situation, researchers, policy-makers, decision-makers, health professionals should derive useful benefits from these case series until the RCTs for COVID 19 see the light of the day. Methodologically, however, no standardized procedure available for synthesizing results out of case series as in case of RCTs. Nevertheless, critical appraisal tools to assess the quality of these studies for reliability and validity exist and can easily be incorporated to get the high quality and reliable results [5].

Recently, we had been working and searching over the best possible results for treatment of COVID 19 with various therapies. However, we failed to find any completed RCTs at that time. Instead, the publications were flooded with case studies and case series from all over the world providing the wealth of data due to the tireless contributions and efforts from the treating physicians and health workers [6]. Case reports and case series supposed to lack the ability to distinguish a statistically significant difference leading to a possible masking of potential risk or benefit of applied intervention. It is also a preemptive assumption that the research applied to clinical practice is more trustworthy if involved higher levels of research evidence (for example, prospective studies, RCTs or a meta-analysis of high-quality studies).

Keeping in mind with the impending dangers and inability of defeating the COVID 19 infections, it is imperative on our part to look beyond RCTs to tide over the current situation. So, let's disseminate the success stories of COVID 19 case series to equip better to win this war against COVID 19.

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