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Antimicrobial Resistance (AMR) — A Threat Continues Emerging in Covid 19 Pandemic & Role of Antimicrobial Stewardship Programmes (ASPs)

Maryam Nasrumminallah[1], Nisha Babar[2], Muhammad Qasim[3]

1,2 Third Year MBBS Student, Dow International Medical college, Karachi, Pakistan; **3** Isra Institute of Rehabilitation Sciences, Karachi, Pakistan.

Correspondence: Maryam Nasrumminallah. **Email**: ismailaman39@yahoo.com

A Novel coronavirus (CoV) named '2019-nCoV' or 'COVID 19 by the World Health Organisation (WHO) could be a disease of respiratory and gastrointestinal tracts infections that's extremely transmissible and dangerous. Covid19 has reached to a hundred and fifty nations, together with China the place wherever eruption of respiratory disorder started at the beginning of Dec 2019 pass on metropolis town, Hubei Territory, China, and that has swayed WHO to decide the disease around the world a pandemic.[1] Currently it is reported to have caused around 199M infections and 4.24 million deaths on a worldwide scale within the Year of 2019 and 2020. Prompt Detection and Treatment of Covid-19 is crucial to intercept the proliferation and transmission of the disease. Within the case of Antimicrobial resistance (AMR) a rampant use of broad spectrum antibiotics (BSA) in treatment of COVID19, a microorganism infection: associate degree calculable 75% of COVID19 patients got antibiotics (ABX) against co-infections and secondary infections[2].

A Nature article published this year highlights that various COVID-19 patients has pointlessly accepted anti-microbial treatment (ABX) for suspected auxiliary microorganism contaminations, which could quicken Antimicrobial Resistance (AMR) and highlights that anti-microbial stewardship Programmes (ASPs) ought to be

underlined presently quite ever[3]. The British Society for Anti-microbial Chemotherapy (BSAC) highlights that Antimicrobial Resistance (AMR) need to be self-addressed with constant urgency as COVID-19[3]. The antibiotics most commonly prescribed to treat hospitalized COVID-19 patients were 1) Azithromycin (50% of admissions where an antibiotic was prescribed), 2) ceftriaxone (42%), 3) vancomycin (25%), and 4) piperacillin/tazobactam (23%). These findings may indicate that antibiotics are being prescribed empirically, meaning before confirmation of a known bacterial infection[4]. The British Society for Antibiotic Chemotherapy (BSAC) found that about half Covid19 clinic patients received anti-microbial (ABX) amid the first six months of the widespread – and in 96% of cases, treatment was given sometime recently, a microorganism contamination was indeed affirmed. In most cases, ABX got to COVID19 patients earlier to affirmation of a microorganism contamination. In 96% of affirmations for patients analysed with COVID-19 in which antibiotics were prescribed, the patients received the first antibiotic (ABX) at admission or within the first 48 hours of hospitalisation. It frequently takes at least forty-eight hours to affirm a microorganism contamination. It frequently takes at least forty-eight hours to affirm a microorganism contamination, so it appears that physicians frequently prescribed antibiotics (ABX) empirically. This irrelevant prescription of antibiotics was mainly due to difficulty in differentiating between Covid-19 pneumonia and bacterial pneumonia, considering that patients might have bacterial co-infections and limited knowledge and experience in managing COVID-19 patients during the early phases of the pandemic[4]. When microbiology testing results were used to identify bacterial infections, only about 7% of COVID-19 admissions were found to have positive bacterial culture results[4]. This is where anti-microbial stewardship programmes (ASPs) are very much needed, to help suppliers and clinicians to make the best clinical decisions possible for anti-microbial (ABX) prescribing.

Antimicrobial stewardship programmes (ASPs) and also the use of antimicrobials were severely challenged throughout the first stages of the pandemic thanks to a scarceness of knowledge on microorganism co-infections and an absence of therapeutic choices.

And here comes the Procalcitonin (PCT)-guided antibiotic stewardship (ABS) project that joins the utilise of procalcitonin (PCT) testing to assume anti-microbial endorsing in patients with suspected or thoroughbred COVID-19[5]. Several hospitals, broadly and globally, have began to utilise procalcitonin (PCT) as associate degree facilitate to assume anti-microbial treatment (ABT). As such, it looks possible that PCT may be accustomed scale back unnecessary antibiotic (ABX) prescriptions in patients with symptoms of COVID-19[5]. National guidelines from NICE don't presently advise routine use of PCT for antibiotic stewardship (ASPs) in COVID-19. However Centres that are already using PCT are inspired to participate in analysis to enhance current proof on the worth of PCT for antibiotic stewardship (ASPs) in COVID-19[5]. More studies are substantially required to analyse the good thing about PCT on a broader scale and aid development of standardised guidelines.

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