New Software helps identify patients likely to require ventilator support thus detecting emergency & ICU needs early

A software can now identify patients likely to require ventilator support in an ICU and referral in time and make necessary arrangements before emergency sets in. The software called Covid Severity Score (CSS) Software consists of an algorithm that measures a set of parameters. It scores each against a pre-set dynamic algorithm multiple times for each patient and allocates a Covid Severity Score (CSS) mapping it in a graphical trend.

The technology is being used in three community covid care centres at Kolkata and suburbs including a 100-bed government mandated covid care centre at Barrackpore, Kolkata.

Sudden ICU and other emergency requirements during the pandemic have been a challenge for hospitals to manage. Timely information about such situations would help manage the health crisis better.

The Foundation For Innovations In Health, Kolkata with support from the Science for Equity, Empowerment and Development (SEED) division of the Department of Science & Technology, GoI in collaboration with IIT Guwahati, Dr. Kevin Dhaliwal, University of Edinburgh and Dr. Sayantan Bandopadhyay, formerly WHO (SE Asia Regional Office), have developed an algorithm that measures symptoms, signs, vital parameters, test reports and comorbidities of the COVID positive patient and scores each against a pre-set dynamic algorithm thus allocating a Covid Severity Score (CSS). This technology has been made available at primary care e-Health clinics in resource poor settings through SEED Project support.

Frontline Health Workers trained in National Skills Qualifications Framework (NSQF) aligned model and certified by National Skill Development Corporation (NSDC), Government of India are trained to record all these parameters in a tablet computer which has the software loaded in it.

The ‘CSS’ is regularly monitored multiple times by ‘remote’ specialist doctors thus reducing the doctor’s consultation time per patient and reducing the doctors travel requirement. It can help early identification of patients likely to require
ventilator support in an ICU and referral, reduce hospital referral for those unlikely to require critical care support, thus releasing more hospital beds in circulation. It will also help in providing monitored medical support to those patients who cannot afford treatment or cannot isolate at home due to poor housing conditions. The facility can be a huge support for ‘Covid Care Centres’ with beds and oxygen support only but no facility for invasive ventilation.