Tool for Influenza Pandemic Risk Assessment (TIPRA)

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Abbreviations and acronyms

ADCC	Antibody Dependent Cellular Cytotoxicity
GIP	Global Influenza Program
GISRS	Global Influenza Surveillance and Response System
HAI/HI	Hemagglutination Inhibition
IRAT	Influenza Risk Assessment Tool
NA	Neuraminidase
NIC	National Influenza Centres
PIRM	Pandemic Influenza Risk Management
ROC	Rank Order Centroid
TE	Technical Experts
TIPRA	Tool for Influenza Pandemic Risk Assessment
US CDC	United States Centers for Disease Control and Prevention
VN	Virus Neutralisation
WHO	World Health Organization
WHO CC	WHO Collaborating Centre for reference and research on influenza

Tool for Influenza Pandemic Risk Assessment (TIPRA)

What's new in TIPRA version 2

The launch of TIPRA Version 2 was in April 2020. The scope and calculation process of an overall risk in TIPRA version 2 have diverged from TIPRA Version 1. First, Version 1 was designed for use on a novel influenza virus which has caused at least one human infection. Version 2 enables risk assessment of animal influenza viruses that have not caused human infection but are still of public health importance. Second, Version 1 employed a gateway approach based on set levels of population immunity to determine viruses with pandemic potential. Version 2 removed this gateway approach and instead included Population Immunity as two separate risk elements weighted in likelihood and impact bringing the total number of risk elements to 10 in version 2, versus 9 in TIPRA Version 1. Third, the ranking and weights of TIPRA Version 1 risk elements were revisited and changed. Overall, likelihood and impact scores between Version 1 and Version 2 would be different; 9 elements in the former and 10 elements in the latter. However, the relative pandemic risk of different viruses to each other is expected to remain similar. Furthermore, TIPRA technical experts (TE) reviewed individual risk elements definitions and criteria of TIPRA version 1. The definitions and criteria provide specificity to the risk elements so that TE can operate from a common understanding when making point estimates within the numerical scale of risk for each risk element under consideration. The TIPRA TE representing each risk element generated revision and established a final consensus version through discussion and debate. Each risk category in individual risk stratifications were refined in version 2 to reduce the scope of subjectivity and minimize the score variations.

Introduction

Background

Influenza pandemics are unpredictable but recurring events that can have consequences on human health and economic well-being worldwide. An influenza pandemic occurs when an influenza A virus to which most humans have little or no existing immunity acquires the ability