

Protocol to
INVESTIGATE
non-seasonal influenza
and other emerging
acute respiratory
diseases



World Health
Organization

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Abbreviations and acronyms

ARDS	acute respiratory distress syndrome
ARI	acute respiratory infection
BSL	biosafety level
FAO	Food and Agriculture Organization of the United Nations
HPAI	highly pathogenic avian influenza
ILI	influenza-like illness
IHR	International Health Regulations
IPC	infection prevention and control
MERS-CoV	Middle East respiratory syndrome coronavirus
OIE	World Organisation for Animal Health
PPE	personal protective equipment
RT-PCR	reverse transcription polymerase chain reaction
SARI	severe acute respiratory infection
SARS	severe acute respiratory syndrome
TIPRA	tool for influenza pandemic risk assessment
WHO	World Health Organization
WHO CC	WHO collaborating centre





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INTRODUCTION

Outbreaks such as those of highly pathogenic avian influenza (HPAI) A(H5N1) and severe acute respiratory syndrome (SARS) increased awareness about the global vulnerability to novel respiratory pathogens (1, 2). The pathogens responsible for these outbreaks spread rapidly across several countries, causing significant social and economic disruption. Public health systems continue to face human infections with non-seasonal influenza viruses such as A(H7N9), A(H5N6) and A(H3N2)v, and with other emerging pathogens such as Middle East respiratory syndrome coronavirus (MERS-CoV) (3). With ongoing animal–human interaction, more new pathogens will cross the species line and cause human infections (4, 5).

Timely investigation is key to reducing the morbidity and mortality associated with events of non-seasonal influenza or other emerging respiratory disease pathogens. Investigations identify cases, and determine the cause of disease, the source and the most probable mode(s) of transmission, as well as the at-risk populations and exposures that may predispose individuals to infection (6). The findings are then used to assess the risk posed by the event, and to develop and implement interventions that stop transmission. Strong linkages between human and animal health sectors are needed for investigations at the human–animal interface, and risk assessments are critical to guide control and prevention measures throughout the investigation and response process.

1.1 Scope of the protocol and target users

This protocol provides an approach for public health authorities and investigators at all levels to plan for and conduct investigations of non-seasonal influenza and other emerging respiratory diseases. The disease etiology is not always known at the onset of the event; therefore, this protocol focuses on important but broadly applicable steps that should be undertaken in the investigation of an acute respiratory disease event. Similarly, the source of the illness, associated exposures and modes of transmission may not be immediately known; hence, this protocol provides guidance for the investigation of different sources, exposures and transmission patterns. Since many recent non-seasonal influenza and other emerging respiratory pathogens are zoonotic, the protocol emphasizes investigation at the animal–human interface.

The protocol reflects and incorporates the practical field experience gained by investigators working at international, national and subnational levels during investigations of non-seasonal influenza, SARS and MERS-CoV outbreaks. It is not intended to be a comprehensive compendium of all the measures that need to be instituted in response to an event, but should be read in conjunction with other guidance (e.g. for clinical management, infection prevention and control [IPC] and animal disease control) and new information about the disease as it becomes available from operational research or the investigation process. This protocol and its tools can serve as a basis for national and local authorities to develop their own procedures, tailored to their specific needs.

Throughout this protocol, general investigation tips and reminders for linkages with risk assessment are provided using the icons shown below:



TIPS AND CONSIDERATIONS



DATA AND INVESTIGATION FINDINGS that can be used to inform risk assessment as well as opportunities to conduct a risk assessment

预览已结束，完整报告链接和二维码如下：

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