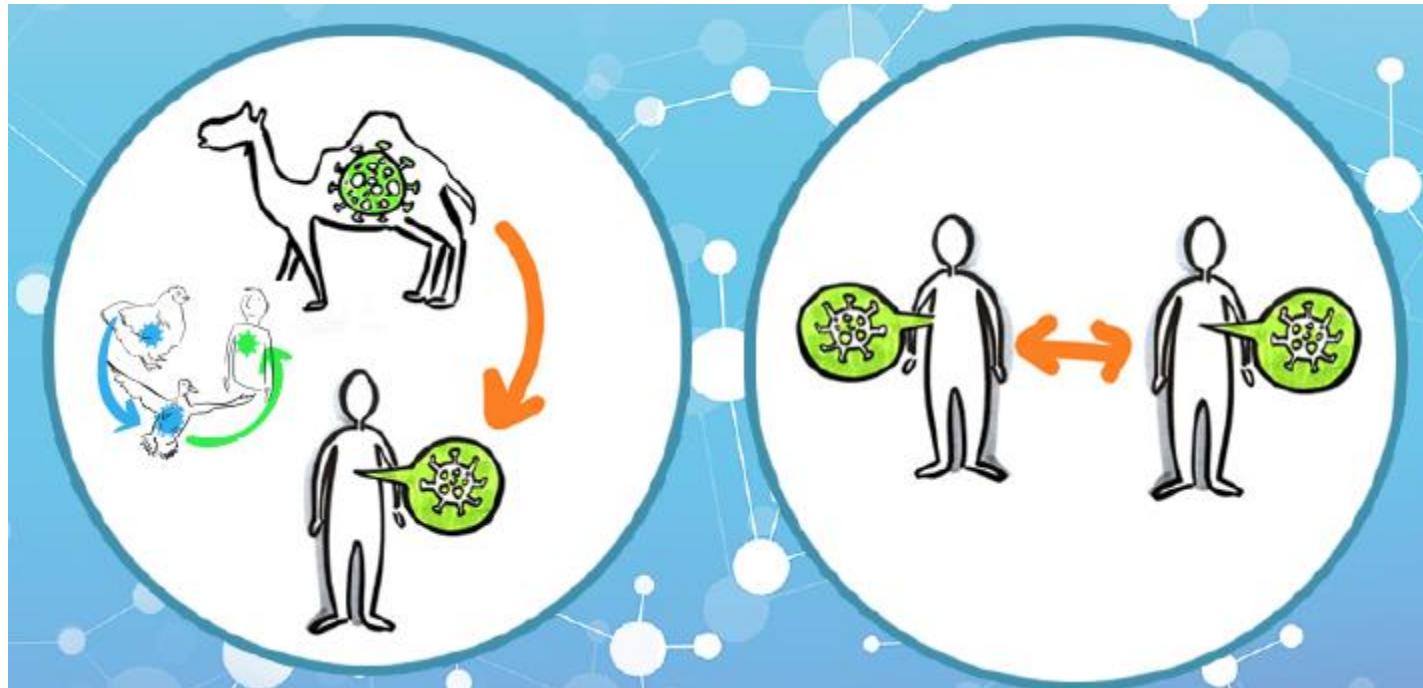


Penanganan Medis Infeksi nCoV

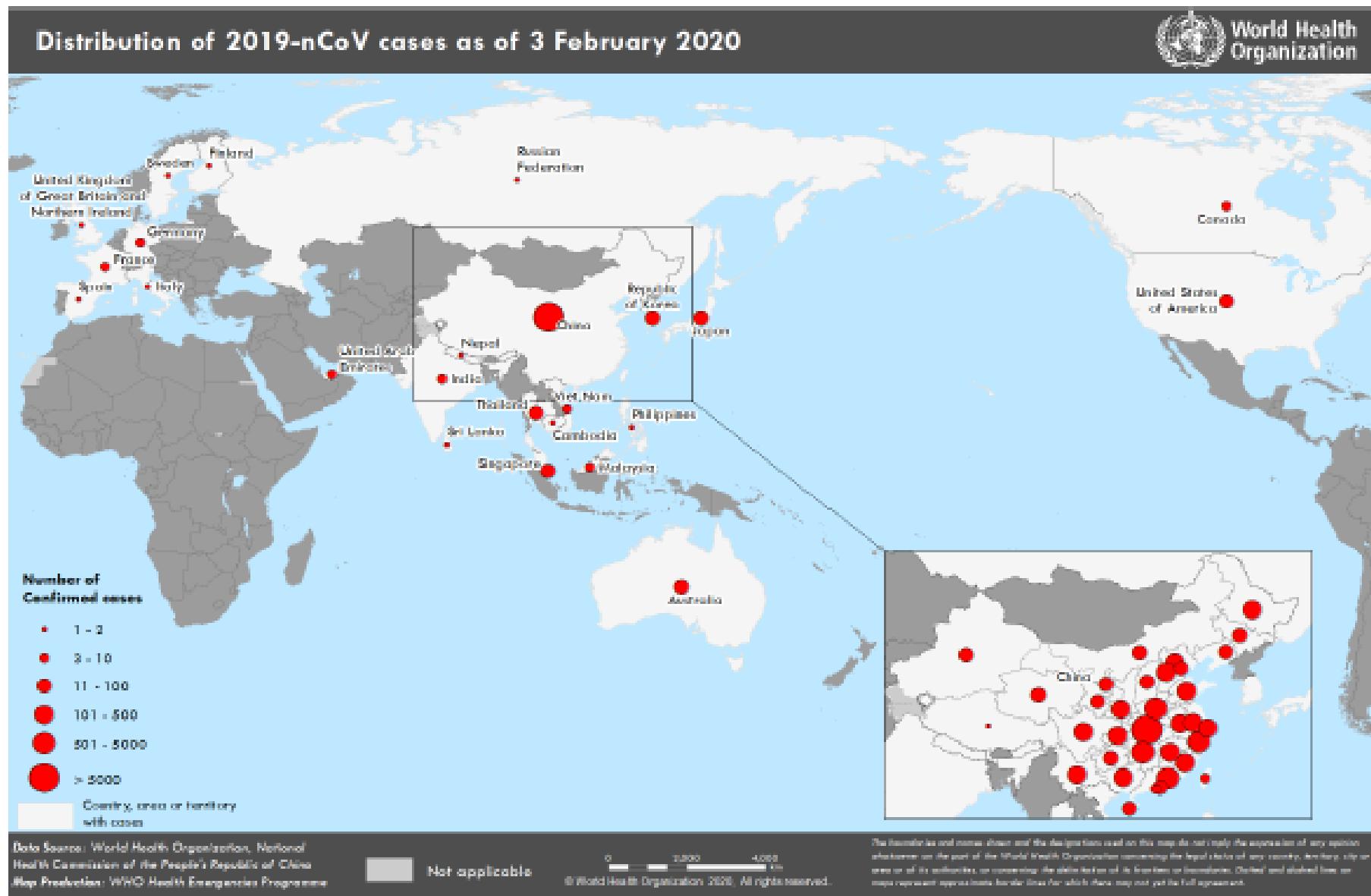


Yovita Hartantri
Tim Infeksi Khusus RSHS/FK UNPAD
Bandung, 5 Pebruari 2020

Masker N-95 ludes gegara virus corona



Epidemiology confirmed cases of 2019 nCoV, 3 February 2020 - WHO

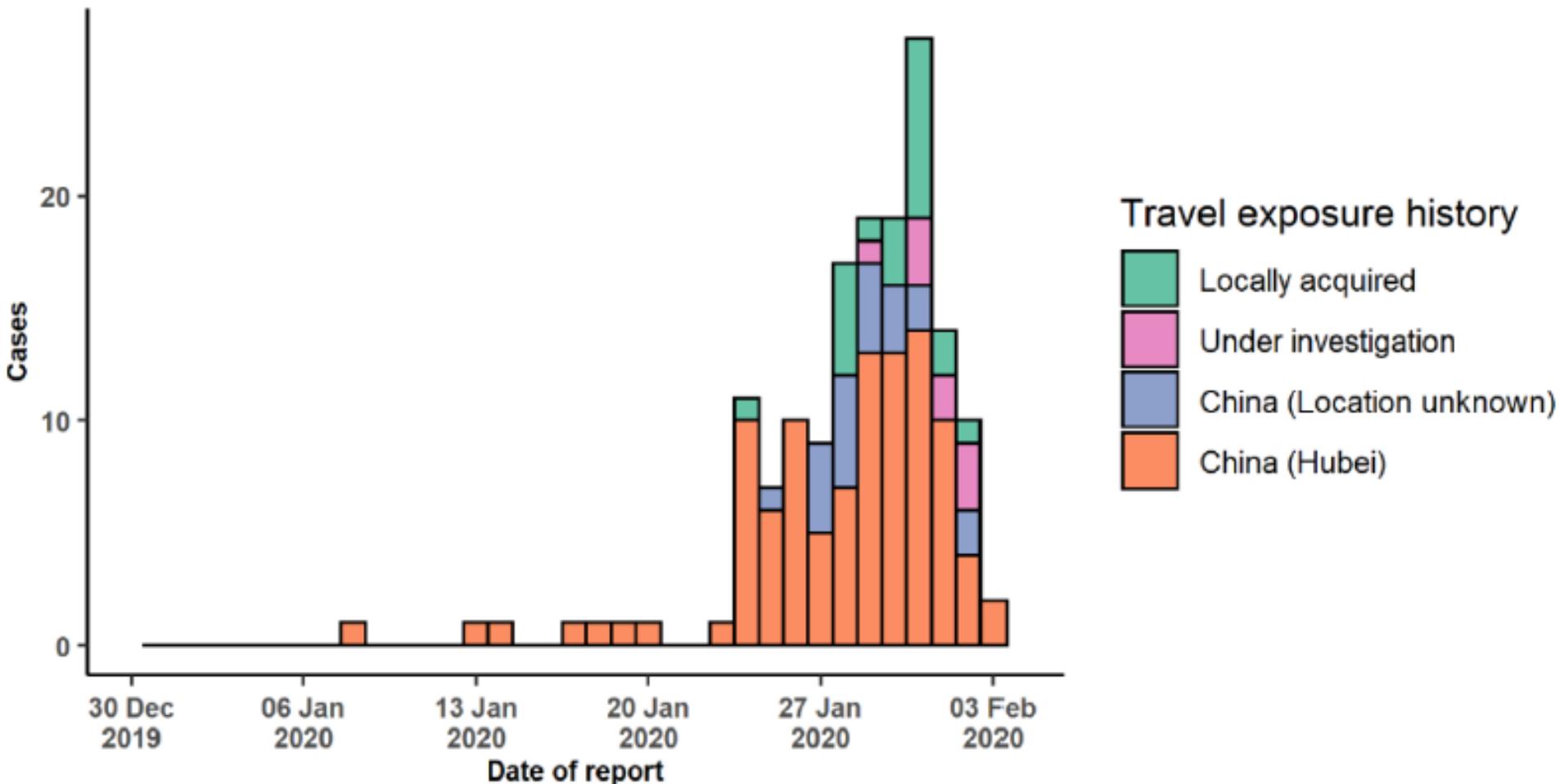


Novel Coronavirus(2019-nCoV)

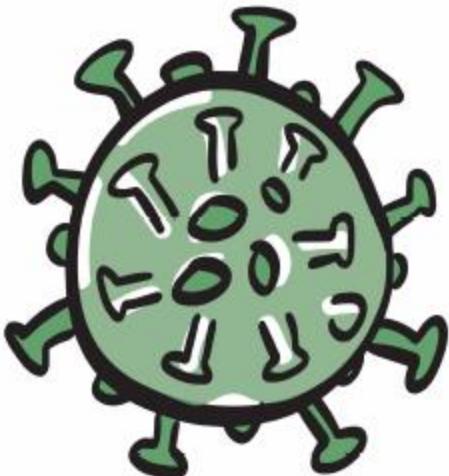
Situation in Numbers

- Total and new cases in last 24 hours
 - Globally : **17.391 confirmed** (2838 new)
 - China : **17.238 confirmed** (2831 new)
 - 2296 severe (186 new)
 - 361 death (17 new) $\approx 2,1\%$
 - Outside of china : 153 confirmed (7 new)
 - 23 countries**
 - 1 death

Epidemic curve of 2019 nCoV cases (n=153) identified outside of China, by date of reporting & travel history



What is a Corona Virus (CoV)



- A large family of viruses
- Zoonotic (civet, camel, bats)
- Causes illness, ranging from common cold to more severe diseases, such as :
 - MERS-CoV
 - SARS-CoV
- **A novel CoV** is a new strain that has not been previously identified in humans

The family of CoronaVirus

- Common human corona viruses
 1. 229E (alpha coronavirus)
 2. NL63 (alpha coronavirus)
 3. OC43 (beta coronavirus)
 4. HKU1 (beta coronavirus)
- Other human corona viruses
 5. MERS-CoV (beta coronavirus)
 6. SARS-CoV (beta coronavirus)
 7. **2019 Novel Coronavirus (beta coronavirus)**



Novel Coronavirus (2019-nCoV) affects the respiratory system.

2019 Novel Corona Virus

- RNA virus
- Family coronaviridae
- Distributed in humans and other mammals
- Most human infections are mild
- Epidemics of the two betacoronavirus
 - Severe acute respiratory syndrome (10%)
 - Middle east respiratory syndrome (37%)
- High concentration of cytokines in plasma

2019 nCoV

- Might mainly act on lymphocytes (T cell) as does SARS-CoV
- Virus particles spread through the respiratory mucosa & infect other cells
- Induce a cytokine storm in the body
- ↓ total lymphocyte indicate that CoV consumes many immune cells & inhibits the cellular immune function

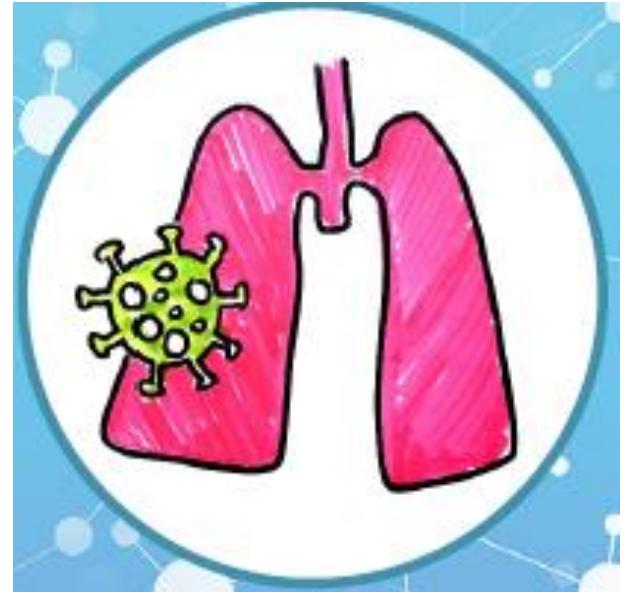
Demographics & Characteristics of 99 patients admitted to Wuhan Jinyintan Hospital with 2019 nCoV

	Patients (n=99)
Age, years	
Mean (SD)	55·5 (13·1)
Range	21–82
≤39	10 (10%)
40–49	22 (22%)
50–59	30 (30%)
60–69	22 (22%)
≥70	15 (15%)
Sex	
Female	32 (32%)
Male	67 (68%)
Occupation	
Agricultural worker	2 (2%)
Self-employed	63 (64%)
Employee	15 (15%)
Retired	19 (19%)
Exposure to Huanan seafood market*	49 (49%)
Long-term exposure history	47 (47%)
Short-term exposure history	2 (2%)
Chronic medical illness	50 (51%)

Chen Nanshan,
et al. the
Lancet 2020

nCoV

- Common sign of **infection include respiratory symptoms :**
 - Fever
 - Cough
 - Shortness of breath & breathing difficulties
- **Severe cases :**
 - Pneumonia
 - Severe acute respiratory syndrome (SARS)
 - Kidney failure



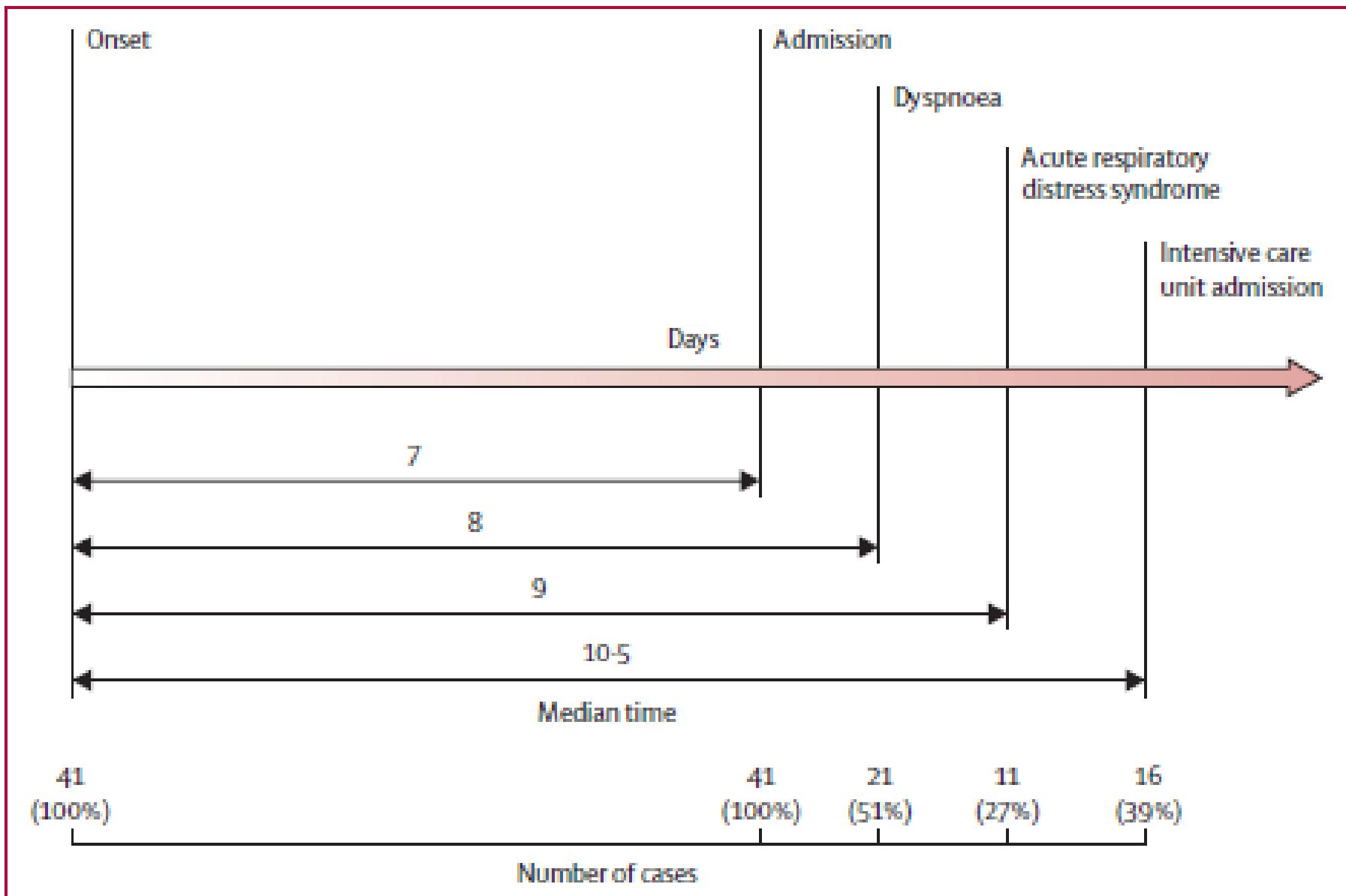
Clinical characteristics (Chen Nanshan et al, the Lancet 2020)

	Patients (n=99)
Signs and symptoms at admission	
Fever	82 (83%)
Cough	81 (82%)
Shortness of breath	31 (31%)
Muscle ache	11 (11%)
Confusion	9 (9%)
Headache	8 (8%)
Sore throat	5 (5%)
Rhinorrhoea	4 (4%)
Chest pain	2 (2%)
Diarrhoea	2 (2%)
Nausea and vomiting	1 (1%)
More than one sign or symptom	89 (90%)
Fever, cough, and shortness of breath	15 (15%)

Symptoms

- Common symptoms (n=41) :
 - Fever (98%)
 - Cough (76%)
 - Mialgia or fatigue (44%)
 - Sputum production (28%)
 - Headache (8%)
 - Hemoptysis (5%)
 - Diare (3%)
 - Dyspnoea (55%)
 - Illness onset to dypnoea 8 days (5-13)

Timelines of 2019 nCoV cases after onset of illness



Diagnostic

- Real time PCR & Next-generation sequencing
 - Throat swab specimens from upper respiratory tract (naso and oropharyng)
 - Sputum or endotracheal aspirates from lower respiratory tract
- Chest X-ray or chest CT

Huang C et al, the Lancet 2020, Chen N et al, the Lancet 2020

Treatment of patients (Chen Nanshan et al, the Lancet 2020)

Treatment

Oxygen therapy 75 (76%)

Mechanical ventilation

Non-invasive (ie, face mask) 13 (13%)

Invasive 4 (4%)

CRRT 9 (9%)

ECMO 3 (3%)

Antibiotic treatment 70 (71%)

Antifungal treatment 15 (15%)

Antiviral treatment 75 (76%)

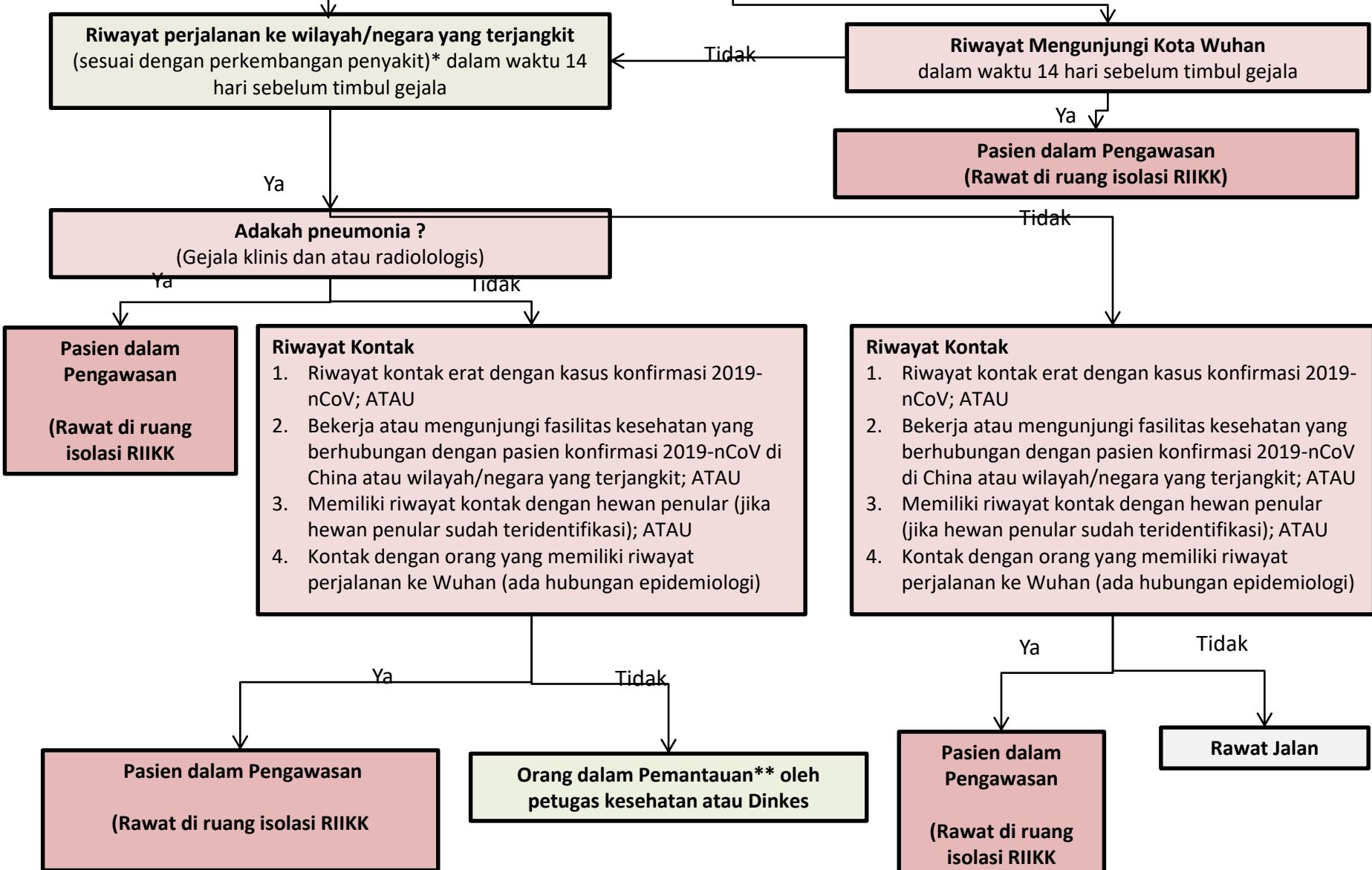
Glucocorticoids 19 (19%)

Intravenous immunoglobulin therapy 27 (27%)

2019-nCoV=2019 novel coronavirus. ARDS=acute respiratory distress syndrome.

ECMO=extracorporeal membrane oxygenation. CRRT=continuous renal replacement therapy.

Influenza-Like Illness (ILI) *
(Demam/Riwayat Demam $\geq 38^{\circ}\text{C}$ disertai salah satu gejala:
Batuk/Pilek/Nyeri Menelan)



Keterangan :

* Hati-hati pada pasien immunocompromised

** Formulir Orang dalam Pemantauan, diserahkan pada pasien untuk diisi sd 14 hari

Terimakasih

