

Treatment experience of COVID-19

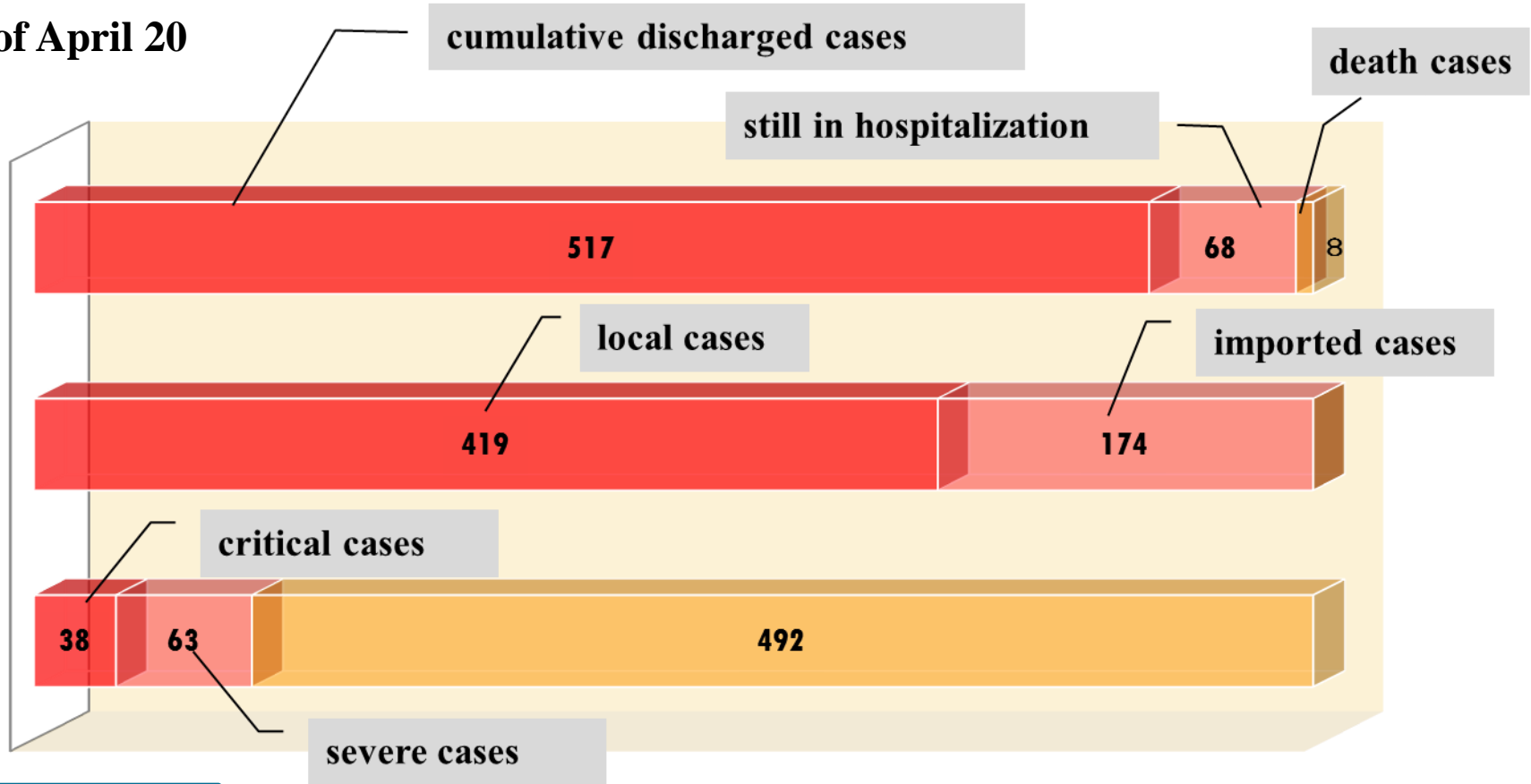
Beijing DiTan Hospital

Li Ang

April 21, 2020

Beijing admitted 593 cumulative confirmed cases

As of April 20



The priority of the government task

Beijing municipal government implemented a series of comprehensive measures and special leader group of joint prevention and control was set up, beginning to respond for prevention, medical treatment, screening.

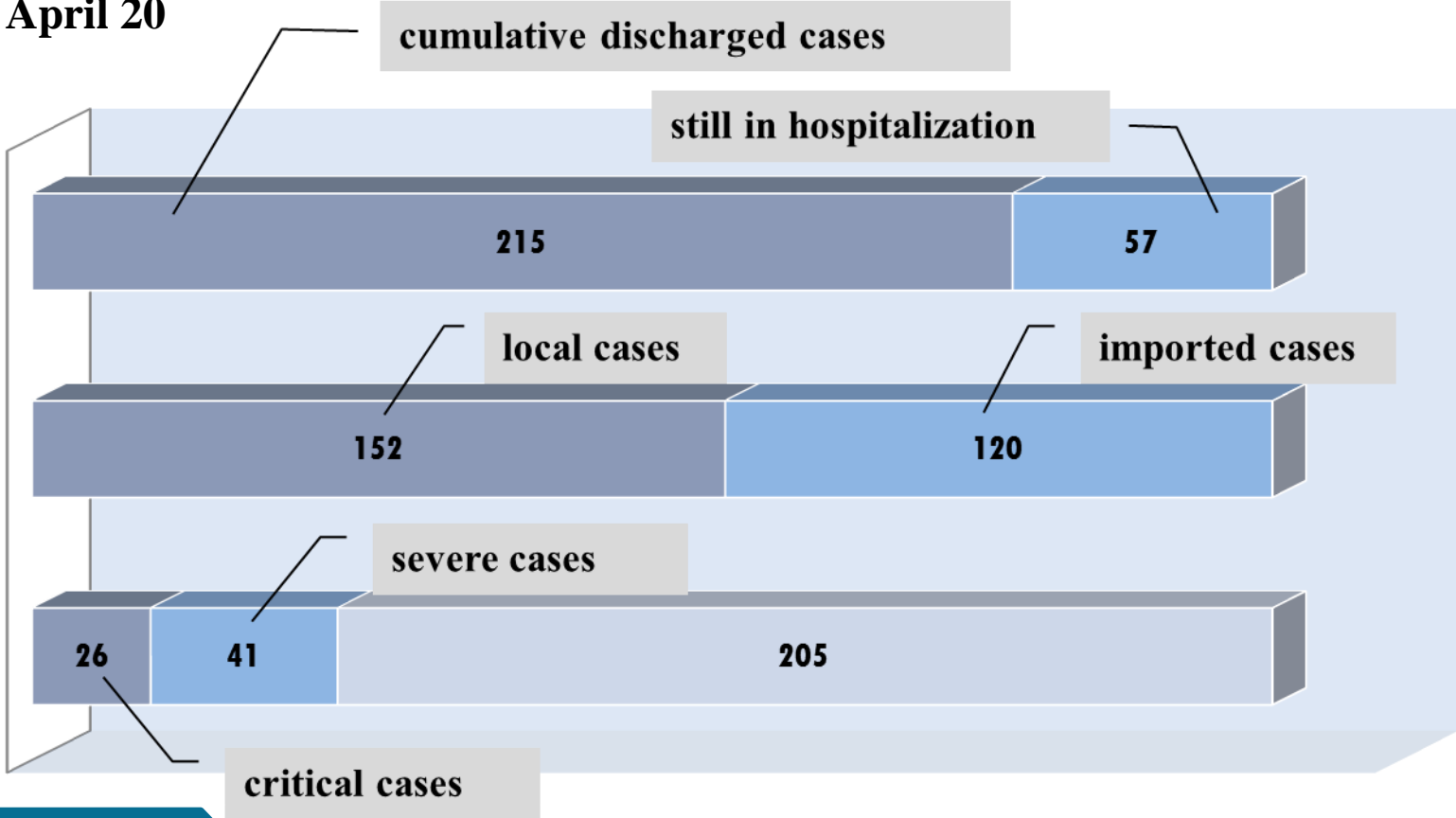
**specifically
for admitting and
treatment of
COVID-19**

**admitted
the first case
in Beijing**

**admitted
most cases
in Beijing**

Ditan hospital admitted 272 cumulative confirmed cases

As of April 20





01

Treatment plan for common case

Treatment plan for common case

Isolation & protective conditions

- Suspected and confirmed cases are treated & isolated in **designated hospitals**
- **Suspected case** should be isolated in a **single** room
- Confirmed cases could be treated in the same room
- **Personal protection** is required during hospitalization

Treatment plan for common case

vital signs & symptoms

- **temperature**
- **pulse/heart rate**
- **respiration**
- **blood pressure**
- **consciousness**
- **mental state**
- **nasal congestion**
- **runny nose**
- **sore throat**
- **cough**
- **sputum**
- **smell and taste changes**
- **digestive tract symptoms**

Treatment plan for common case

Clinical parameters

- **Routine tests**
- **Biochemical indicators**
- **Myocardial injury markers**
- **Inflammation**
- **Blood coagulation function**
- **Arterial blood gas analysis**
- **Cellular immunity**
- **RNA results**
- **CT**

Oxygen support

- **$\text{SpO}_2 < 95\%$ the patients should be given.**
- **$\text{SpO}_2 \leq 93\%$ oxygen should be administered via nasal cannula or mask.**
- **High-flow nasal cannula oxygen therapy or noninvasive ventilation.**
- **Endotracheal intubation and invasive mechanical ventilation.**



Antiviral therapy

- **alpha interferon combined with Lopinavir/ritonavir**
- **alpha interferon plus ribavirin**
- **chloroquine phosphate should be used with caution**




02

Treatment of critically ill patients



Coordinate the city's expert resources

- **Beijing paid close attention to the treatment of critically ill patients.**
 - **Set up an expert group on critical diseases, and organized experts to conduct remote medical consultation on critically ill patients and discuss treatment plans every day.**
 - **So far it has been 60 issues.**
- 

Outcome of critical cases in ICU

- **As of April 20, 67 cases were Severe in Ditan Hospital , of which 34 were admitted to ICU**
- **ARDS grade A, 4 cases, all receive HFNC**
- **ARDS grade B, 20 cases, of which 5 cases receive intubation, 13 cases were treated with HFNC**
- **ARDS grade C, 10 cases, all receive intubation, and of which 5 cases were treated with ECMO**
- **Prognosis: 29 cases survived (85%), 1 case death (ECMO), others still in treatment**

Management of critically ill adults

- **MDT Consultation**
- **Infection Control**
- **Drug treatment**
- **Hemodynamic Support**
- **Ventilatory support**
- **Nutrition support**
- **Psychological support and early recovery**

Infection control

- **Enhance the supervision**
- **Risk classification**
 - **Low-risk:** general examination and care
 - **High-risk operations:** intubation, tracheotomy

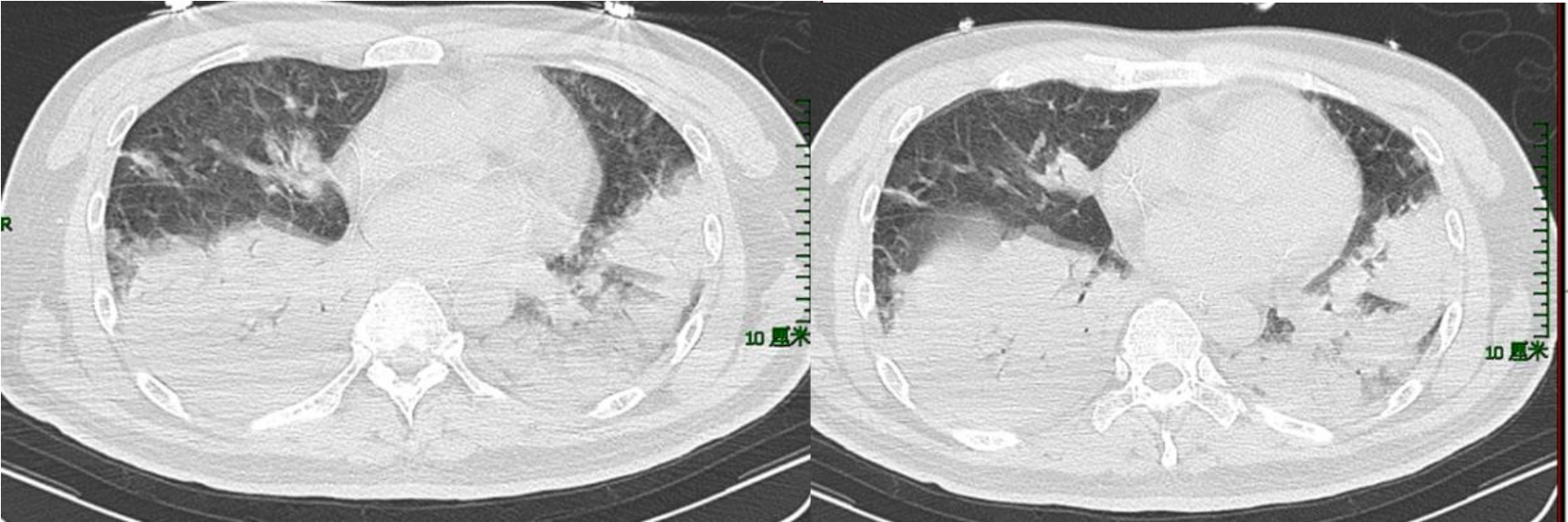




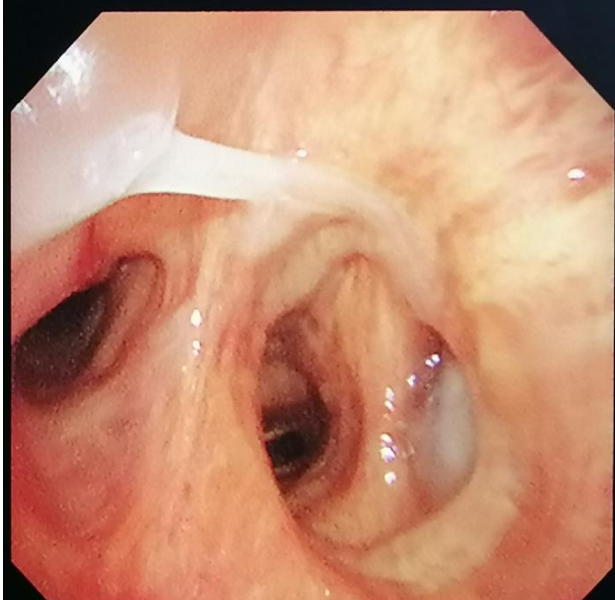
Hemodynamic support

- **Hemodynamic assessment**
 - **Ultrasound assessment of liquid response**
 - **Ultrasound of lung**
 - **Conservative volume management**
- **Vascular active drugs**
 - **dopamine, norepinephrine**

Clinical feature of COVID-19 with ARDS



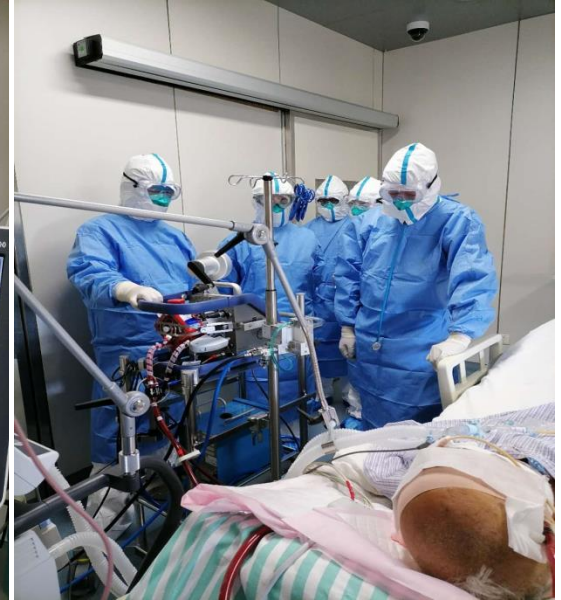
Ventilation management



**Bronchi of bioscope
sputum suction**



Prone position



ECMO

Other problems

- **Nutrition Support**
 - **Decreased appetite**
 - **Intestinal nutrition: noninvasive ventilation patients can be intravenous nutrition in the short term**
 - **Intestinal nutrition: early intestinal nutrition in patients with invasive ventilation**

Other problems

- **Psychological support**
 - **Psychological emergency, unaccompanied family companionship: fear, anxiety is more common**
 - **Psychological support: health care providers, remote video communication, music therapy**
- **Early rehabilitation**
 - **Prevent ICU complications**

Rehabilitation





03

Traditional Chinese medicine diagnosis and treatment

Traditional Chinese medicine diagnosis and treatment

- **Establish a working mechanism in which traditional Chinese medicine will participate at the first time.**
- **Early intervention and wide coverage.**





Effective in treatment

- **For patients with mild symptoms, the treatment effect of traditional Chinese medicine is obvious.**
- **For critically ill patients, established combined consultation mechanism of Chinese and Western medicine.**



Effective in treatment

- **According to the patient's symptoms, signs and tongue characteristics, individualized principle and formula were given.**
- ✓ **detoxification, cool blood and relieving lung disease**
- ✓ **nourishing Yin and invigorating spleen lung treatments**



Unity is Strength for Us to Overcome the COVID-19

Thanks for listening