Treatment experience of COVID-19

Beijing DiTan Hospital
Li Ang

April 21, 2020
Beijing admitted 593 cumulative confirmed cases

As of April 20

- **cumulative discharged cases**: 517 (68 deaths, 8 death cases)
- **local cases**: 419 (174 death cases)
- **imported cases**: 63 (38 critical cases)
- **severe cases**: 492

**Still in hospitalization**
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

- **Cumulative discharged cases**: 215
- **Still in hospitalization**: 57
- **Local cases**: 152
  - **Severe cases**: 26
  - **Critical cases**: 41
- **Imported cases**: 120
  - **Critical cases**: 205
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
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
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
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.
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.
• 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