



Littafin Jagora na COVID-19 Yin rigakafi da Jiyya

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Compiled According to Clinical Experience*

Contributed by Volunteers



马云公益基金会
Jack Ma Foundation



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Bayanin Edita:

An fuskance shi da kwayar cutar da ba a sani ba, rabawa da haɗin gwiwa sune mafi kyawun magani.

Buga wannan littafin Jagora yana daga cikin mafi kyawun hanyoyi don alama karfin hali da hikimar waɗanda ma'aikatan lafiyarmu suka nuna a cikin watanni biyu da suka gabata.

Godiya ga duk waɗanda suka ba da gudummawa ga wannan Littafin Jagora, tare da raba kimar kwarewa tare da abokan aikin kiwon lafiya a duniya yayin ceton rayukan marasa lafiya.

Godiya ga goyon baya daga abokan aikin kiwon lafiya a kasar Sin waɗanda suka ba da kwarewar da za su ba mu kwarin gwiwa.

Godiya ga Gidauniyar Jack Ma don fara wannan shirin, da kuma AliHealth don goyon bayan fasaha, yin wannan Jagorar tana yiwuwa don tallafawa yaƙi da cutar.

Littafin Jagorar yana samuwa ga kowa kyauta. Koyaya, saboda iyakance lokacin, za'a iya samun wasu kurakurai da lahani. Ra'ayoyinku da shawarwarin ku suna maraba sosai!

Farfesa Tingbo LIANG

Edita-in-Babban littafin Jagora na COVID-19 Yin rigakafi da jiyya

Shugaban asibitin farko na ffi ya yi saukar da asibitin koyarwa na Jami'ar Zhejiang

Fitowa

Wannan yakin duniya ne wanda ba a taba ganin sa ba, kuma mankindan Adam yana fuskantar makiya guda, watau corona-virus. Kuma fagen fama na farko shine asibitin da sojojinmu suke likitocin. Don tabbatar da cewa za a iya cinye wannan yakin, dole ne mu fara tabbatar da cewa tabbacin lafiyarmu zai wadatar da albarkatun, gami da kwarewa da fasaha. Hakanan, muna bukatar tabbatar da cewa asibitin shine filin yaƙi inda muke kawar da kwayar cutar, ba inda cutar ta mamaye mu ba.

Don haka, gidauniyar ta Jack Ma da Gidauniyar Alibaba sun hado wata kwararrun likitocin da suka dawo daga lamuran fada da cutar. Tare da taimakon asibitin farko na ffi wanda aka lika, asibitin koyarwa na jami'ar Zhejiang (FAHZU), cikin hanzari suka buga littafin jagora game da kwarewar asibiti game da yadda ake kulawa da wannan sabon maganin cutar sankara. Jagorar magani tana bada shawarwari da kwatankwacin cutar kansar cutar cuta ta marasa lafiya a duniya da ke shirin shiga yakin.

Godiya ta musamman ga likita ff daga FAHZU. Yayin da suke da babban kasada a cikin lura da marasa lafiyar COVID-19, sun rubuta gwanintarsu ta yau da kullun wacce ke nuna wannan littafin Jagora. A cikin kwanaki 50 da suka gabata, an tabbatar da marasa lafiya 104 zuwa FAHZU, ciki har da marasa lafiya 78 masu rauni da rashin lafiya. Godiya ga ayyukan majagaba na likitanci da yin amfani da sabbin fasahohi, har wa yau, mun ga abin al'ajabi. Babu wanda ya kamu da cutar, kuma babu cutar da aka rasa ko masu hakuri.

A yau, tare da yaduwar cututtukan, waɗannan abubuwan kwarewa sune tushen mahimmancin bayanai da kuma mafi mahimmancin makami ga ma'aikatan kiwon lafiya a kan fagen fama. Wannan wata sabuwar cuta ce, kuma kasar China ce ta fara kamuwa da cutar. Bayanin, rarrabuwar kai, magani, matakan kariya, da kuma farfadowa duka sun fara daga karce. Muna fatan cewa wannan littafin Jagora zai iya samarwa likitoci da ma'aikatan aikin jinya a wasu wuraren tallafi masu mahimmanci don haka ba lallai ne su shiga fagen fama shi kadai ba.

Wannan cutar ta yau da kullun babban kalubale ne da ɗan adam ke fuskanta a lokacin duniya. A wannan lokacin, raba albarkatu, kwarewa da darussan, ko da wane ne kai, shine kawai damarmu don cin nasara. Maganin ainihin maganin wannan cutar ba warewa bane, amma hadin kai.

Wannan yakin ya faro yanzu.

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Kashi Na Daya rigakafin da Gudanar da Kulawa

I. Gudanar da Yanki

1 Ciwon Cibi

1.1 Zane

- (1) Cibiyoyin kiwon lafiya za su kafa asibitin kwantar da hankali wanda ya hada da hanyar wucewa ta hanya daya tak a kofar asibiti tare da alamar zahiri;
- (2) Yunkurin mutane su bi ka'idodin "bangarori uku da passag-es"; yanki mai gurbatawa, yanki mai gurbatawa da yanki mai tsabta da aka bayar kuma ya lalata shi, da kuma bangarorin biyu biyu tsakanin yankin da ke gurbata da yiwuwar aiki. yankin gurbatawa;
- (3) Wuri mai zaman kansa zai zama sanye da kayan abubuwa masu gurbatawa; Kafa yankin na gani don isar da kai na abubuwan guda daya daga yanki mai (yanki mai gurbata) zuwa sashin kebe (yankin da ke gurbata);
- (4) Za'a tsara matakan da suka dace domin ma'aikatan kiwon lafiya su saka kayan aikin kariya. Yi zirga-zirgar zirga-zirgar fannoni daban-daban, samar da madubi mai cike da tsayi kuma lura da hanyoyin tafiya sosai;
- (5) Ya kamata a sanya rigakafin kamuwa da fasahar sarrafawa don kula da kwararrun likitoci kan sakawa da cire kayan kariya kamar hana yaduwar cuta;
- (6) Duk abubuwan da ke cikin yankin da aka kazantar da ba ya kazantar dasu ba za'a cire su ba.

1.2 Tsarin Yanki

- (1) Kafa dakin jarrabawa mai zaman kansa, dakin gwaje-gwaje, dakin dubawa, da kuma dakin sakewa;
- (2) Kafa yankin pre-jarrabawa da kuma jigon bambance-bambance don yin gwajin farko na marasa lafiya;
- (3) Rarrabewar rarrabuwa da bangarorin jiyya: wadancan marasa lafiya wadanda ke da tarihin cututtukan kwayar cuta da zazzabi da / ko alamun bayyanar numfashi za a jagorance su zuwa wani yanki da ake zargi da cutar COVID-19; wadancan marasa lafiya da zazzabi na yau da kullun amma babu bayyanannu tarihin annoba za a jagorance su zuwa yanki mai hakuri na yau da kullun.

1.3 Gudanar da hakuri

- (1) Marasa lafiya da fevers dole ne su sa mashin tiyata na likita;
- (2) Marasa lafiya ne kawai aka basu izinin shiga wurin jira don gujewa cunkoson jama'a;
- (3) Za a rage tsawon lokacin ziyarar mai hakuri don kaurace wa cututtukan da ke hauka;
- (4) Ilmantar da marasa lafiya da danginsu game da asalin alamun bayyanar cututtuka da kuma matakan kariya masu mahimmanci.

1.4 Nunawa, Neman shiga da Wuya

- (1) Dukkanin ma'aikatan kiwon lafiya za su fahimci cikakkiyar sifa da sifofi na COVID-19 da kuma marasa lafiyar allo gwargwadon sharuɗɗan binciken da ke kasa (duba Tebur 1);
- (2) Za'a gudanar da gwajin kwayoyin halittar acid na Nicic acid (NAT) akan wadancan marasa lafiyar da suka cika sharuɗɗan dubawa don waɗanda ake zargi da cutar;
- (3) Marasa lafiya waɗanda ba su cika ka'idojin binciken da ke sama ba, idan ba su da tarihin cutar ta ɓoye, amma ba za a iya yanke hukunci daga cutar daga COVID-19 kuma a kwantar da shi daga asibiti. Idan waɗanda ba za a iya fitar da su daga kamuwa da cututtukan COVID-19 dangane da alamun asibiti ba, to za a sake musu wasu karin gwaje-gwaje na NAT a kowace sa'o'i 24 har sai an cire su ko kuma tabbatar da su.;
- (5) Wadancan tabbatattun shari'o'i da kyakkyawan sakamako na NAT za a shigar dasu kuma a bi da su gwargwadon yanayin yanayin su (babban dakin ware ko ICU ta ware).

Table 1 Screening Criteria for Suspected COVID-19 Cases

Epidemiological History	<ol style="list-style-type: none"> ① Within 14 days before the onset of the disease, the patient has a travel or residence history in the high-risk regions or countries; ② Within 14 days before the onset of the disease, the patient has a history of contact with those infected with SARS-CoV-2 (those with a positive NAT result); ③ Within 14 days before the onset of the disease, the patient had direct contact with patients with fever or respiratory symptoms in high-risk regions or countries; ④ Disease clustering (2 or more cases with fever and/or respiratory symptoms occur at such places as homes, offices, school classrooms, etc. within 2 weeks) 	The patient meets 1 epidemiological history and 2 clinical manifestations.	The patient has no epidemiological history and meets 3 clinical manifestations.	The patient has no epidemiological history, meets 1-2 clinical manifestations, but cannot be excluded from COVID-19 through imaging.
Clinical Manifestations	<ol style="list-style-type: none"> ① The patient has fever and/or respiratory symptoms; ② The patient has the following CT imaging features of COVID-19: multiple patchy shadows and interstitial changes occur early, particularly at the lung periphery. The conditions further develop into multiple ground-glass opacities and infiltrates in both lungs. In severe cases, the patient may have lung consolidation and rare pleural effusion; ③ The white blood cells count in the early stage of the disease is normal or decreased, or the lymphocyte count decreases over time. 			
Suspected Case Diagnosis		Yes	Yes	Expert consultation

2 Yankin Ward

2.1 Zaman Aikace-aikacen

Yankin yanki na warewa ya hada da yanki na kallo, gundarin warewa, da kuma yankin kebewa na ICU. Tsarin ginin da aikin aiki zai dace da bukatun da suka dace na ka'idodi na karewar asibitin. Masu ba da lafiya na asibiti tare da dakunan matsin lamba mara kyau za su aiwatar da tsari na daidaituwa gwargwadon abubuwan bukatun da suka dace. Yi takaitaccen iyakance damar samun hanyar kebewa.

2.2 Zane

Da fatan za a koma asibitin zazzabi.

2.3 Bukatun Ward

- (1) Za a raba marasa lafiya da aka tabbatar kuma an tabbatar da su a sassan yanki daban-daban;
- (2) Za a ware marasa lafiya marasa lafiya a cikin dakuna guda daban. Kowane daki za a sanye take da kayan aiki kamar su gidan wanka mai zaman kansa kuma aikin mai hakuri ya kamata a kulle shi a cikin wurin warewar;
- (3) Za'a iya shirya marasa lafiya da suka tabbatar a cikin daki guda tare da shimfiɗa wuraren gado wanda ba kasa da mita 1.2 (kira 4 kafa). Dakin za a sanye shi da kayan aiki kamar su gidan wanka kuma dole ne a sanya ayyukan mai hakuri zuwa sashen kebewa.

2.4 Gudanar da hakuri

- (1) Ziyarar dangi da kula da shayarwa za a ragu. Yakamata a kyale marassa lafiya su sami na'urar sadarwa ta lantarki don sauƙaƙe mu'amala da waɗanda suke kauna;
- (2) Ilmantar da marassa lafiya domin taimaka musu hana ci gaba da yaduwar COVID-19, da kuma bayar da umarni kan yadda ake sanya masakun tiyata, aikin wanke hannu, kulawar tari, lura da aikin likita da kuma kebewar gida.

II. Gudanarwa ff Gudanarwa

1 Gudanar da aiki

- (1) Kafin aiki a asibitin zazzabi da kuma kebewa, ma'aikatar dole ne ta dauki tsauraran horo da gwaje-gwaje don tabbatar da cewa sun san yadda ake sakawa da cire kayan kariya na mutum. Dole ne su wuce irin wadannan gwaje-gwaje kafin a ba su izinin yin aiki a cikin wayoyin.
- (2) Ya kamata a rarraba ma'aikatar cikin rukuni-rukuni. Kowane kungiyar yakamata a iyakance a matsayin mafi karancin awa 4 na aiki a sashin ware. Kungiyoyin zasuyi aiki a bangarorin kebe (bangarorin da ke gurbata) a kowane lokaci.
- (3) Shirya jiyya, jarrabawa da kuma tawayya ga kowace kungiya a matsayin rukuni don rage tasirin matsakaiciyar motsawa cikin da kuma daga cikin bangarorin kebewa
- (4) Kafin tafiya hutu, wajibi ne ya kasance yakamata ya yi wanka da kuma gudanar da tsare-tsaren hanyoyin kula da lafiya na mutum don kiyaye yiwuwar kamuwa da cuta da hanjin hanji da mucosa

2 Gudanar da Lafiya

- (1) Matakin farko-na bangarorin ware - da suka hada da ma'aikatan kiwon lafiya, kwararrun likitocin da kuma ma'aikata & ma'aikatun - za su zauna a mazaunin ware kuma ba za su fita ba tare da izini ba.
- (2) Za a samar da abinci mai gina jiki don inganta rigakafin ma'aikatan kiwon lafiya.
- (3) Saka idanu da yin rikodin yanayin lafiyar dukkan ma'aikatan ff akan aikin, da kuma gudanar da aikin kula da lafiya na layin-gaba, hade da sanya idanu a jiki da alamomin numfashi; taimakawa wajen magance duk wata matsalar ilimin halayyar dan adam da ta taso tare da kwararrun masana.
- (4) Idan sta na da wasu alamu masu dacewa kamar zazzabi, za a ware su kai tsaye kuma a duba su da NAT.
- (5) Lokacin da masu gaba-gaba da ff gami da ma'aikatan kiwon lafiya, masu kwararrun likitoci da kayan gini & ma'aikatan kididdigar suka gama aikin su a yankin kebewa kuma suna dawowa rayuwa ta yau da kullun, da farko za a gwada su NAT don SARS-CoV-2. Idan korau, za a ware su gaba daya a wani takamammen yanki na tsawon kwanaki 14 kafin a fitar da su daga duba lafiyar.

III. COVID-19 Mai Kariyar Keɓaɓɓiyar Kariya

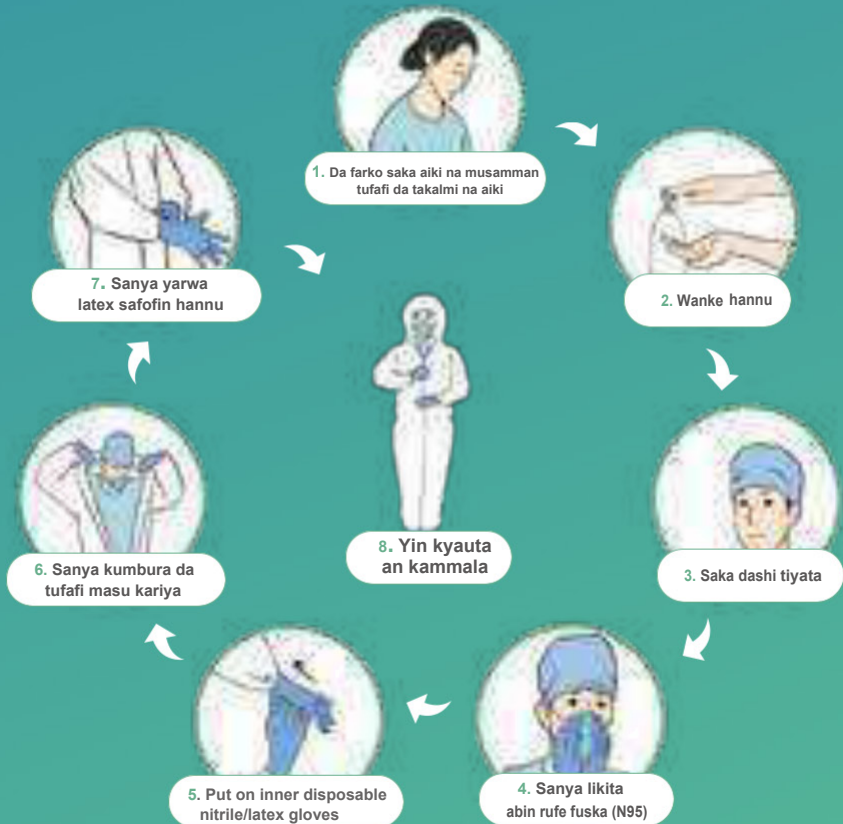
Matakan Kariya	Kayayyakin Kariya	Zaman Aikace-aikacen
Mataki na kariya	<ul style="list-style-type: none"> ▪ Abin iya diski na wucin gadi ▪ Abin zubar da abin rufe fuska ▪ Uniform aiki ▪ Zane safofin hannu na latex ko / da warewar warewa tufafi idan ya cancanta 	<ul style="list-style-type: none"> • Kalan-pre-jarrabawa, general outpatient sashen
Mataki na II kariya	<ul style="list-style-type: none"> ▪ Abin iya diski na wucin gadi ▪ Mashin kariya daga likita (N95) • Work uniform <ul style="list-style-type: none"> • Amintaccen kariya na likita • uniform <ul style="list-style-type: none"> ▪ Zane safofin hannu na latex • Goggles 	<ul style="list-style-type: none"> • Zazzabi na asibitin waje • Bangaren yanki (gami da ware) m ICU) • Aikin aiki na wadanda ake zargi tabbatar da marasa lafiya • Gwajin hoton wanda ake zargi da shi / an tabbatar da marasa lafiya • Share kayan aikin tiyata da akayi amfani dasu tare da wadanda ake zargi / tabbatar da marasa lafiya
Level III protection	<ul style="list-style-type: none"> ▪ Abin iya diski na wucin gadi ▪ Mashin kare kariya (N95) ▪ Uniform aiki ▪ Amintaccen kariya na likita uniform ▪ Zane safofin hannu na latex ▪ Cikakkiyar kariya ta fuska ▪ Na'urori ko airaumarwar iska ingantaccen numfashi 	<ul style="list-style-type: none"> Lokacin da staff ya yi aiki kamar kamuwar ciki, tracheotomy, bronchofibroscope, gastroenterological endoscope, da sauransu, a lokacin, wanda ake zargi / tabbatar Marasa lafiya na iya fesa ko feshin numfashi secretions ko ruwa / jini • Lokacin da staan sandar tayi aikin tiyata da autopsy don tabbatarwa / wanda ake zargi marasa lafiya • Lokacin da staff ya aiwatar da NAT na COVID-19

Bayanan kula:

1. Dukkanin ma'aikata a wuraren kiwon lafiya dole su sanya mashin tiyata na likita;
2. Dukkanin ma'aikatan da ke aiki a sashen gaggawa, sashen kula da cututtukan cututtukan zuciya, sashen na asibiti na kula da numfashi, sashen stomatology ko endoscopic examination dakin (kamar gastrointestinal endoscopy, bronchofibroscope, laryngoscopy, da sauransu) dole ne su haɓaka aikin tiyata zuwa masks kariya ta likita (N95) dangane da matakin I;
3. Staff dole ta sa allon kariya mai kariya dangane da matakin Level II yayin tattara samfurori na respiratory daga wadanda ake zargi / wadanda aka tabbatar da cutar.

IV. Tsarin Magunanan Asibiti yayin Cutar COVID-19

- 1 Jagora kan bayar da gudummawa da Cire Kayan Aikin Kare na Kai (PPE) don sarrafa marassa lafiyar COVID-19



Protocol na Donning PPE:

Saka tufafi na musamman da takalmin aiki → Wanke hannu → Sanya kyallen tiyata na fata → Sanye da abin rufe fuska na kariya (N95) → Saka safofin hannu na nitrile / latex → Sanya gilashi da kariya na kariya (bayanin kula: idan sanya suturar kariya ba tare da murfin kafafu, da fatan za a kuma sanya murfin taya mai hana ruwa ruwa daban), saka damarar gashi na musamman (in an bukata a takamaiman yanki mai aiki) da kuma garkuwar fuska / mai hurawa numfashi mai iska (idan ana bukata a takamaiman yankin aiki) → Sanya matattara kayan sa hannun/latex



Protocol don Cire PPE:

A wanke hannaye kuma a cire abubuwan da ke bayyane na jiki / gurbata jini a saman hanyoyin hannayen biyu → Wanke hannaye maye gurbin safofin hannu a ciki tare da sabbin safofin hannu → Cire mai hura iska mai amfani da iska ko kuma abin rufe fuska (in da aka yi amfani da shi) → Wanke hannu → Cire kwalliyar riga da sauran safofin hannu (idan an yi amfani dasu) → Wanke hannaye kuma sa safofin hannu na waje → Shigar da Cire Wurin A'a. ① → Wanke hannuwa ka cire rigunan kariya tare da safofin hannu na waje (na safofin hannu da suturar kariya, juya waje, yayin jujjuya su) (bayanin kula: idan anyi amfani da shi, cire murfin takalmin ba da ruwa da sutura) → Wanke hannu → Shigar da Cire Kaya No. → Wanke hannu da cire golf → Wanke hannu da cire mask → Wanke hannu da cire hula → Wanke hannu da cire safofin hannu na ciki → Wanke hannu kuma barin yankin Kaucewa ② → Wanke hannu, shan shawa, sanya sutura masu tsabta. kuma shigar da yanki mai tsabta.

2 Tsarin Kayayyakin Kayayyaki don COVID-19 Bango Ward Ward

2.1 Rashin kamuwa da farfajiya da ganuwa

- (1) Za a iya cire gurbatattun abubuwa kafin a lalata kuma ayi shi da shi ta hanyoyin zubar da jini da zubar ruwan jiki.
- (2) Shafaffen bene da ganuwar tare da 1000 mg / L chlorine-mai maganin maye ta hanyar motsi, fesawa ko shafawa;
- (3) Tabbatar cewa an gudanar da kamuwa da cuta a kalla mintuna 30;
- (4) A kwashe shan sau uku a rana kuma a maimaita aikin a duk lokacin da gurbacewa ya kasance.

2.2 Rashin Kamuwa da Abubuwan Ruwa

- (1) Za a iya cire abubuwa masu gurbataccen gaba kafin a tsabtace su kuma a bi da su ta hanyoyin zubar da jini da zubar da ruwa cikin jiki;
- (2) Shafa saman abubuwa tare da 1000 mil / Llor mai dauke da maganin maye ko goge shi da sinadarin chlorine; jira minti 30 sannan sai a tsabtace da ruwa mai tsabta. Aikata hanyoyin kashewa sau uku a rana (sake maimaita kowane lokaci lokacin da ake zargin gurbata fata)
- (3) Shafan yankuna mafi tsabta da farko, sannan kuma yankuna da ke gurbataccen: fara shafa abubuwan danshin da basu taɓa taɓawa ba, sannan kuma goge abubuwan da suke taɓa taɓawa. (Da zaran an goge wani abu mai tsabta, maye gurbin shafe shafe da sabon).

2.3 Rashin Tsarin iska

- (1) Za'a iya amfani da sterili iska na plasma kuma a ci gaba da gudana don shakar iska a cikin wani yanayi tare da aikin dan adam;
- (2) Idan babu isassun iska na plasma iska, yi amfani da fitilun ultraviolet na awa 1 kowane lokaci. Yi wannan aiki sau uku a rana.

2.4 Zubar da Matter Matter da najasa

- (1) Kafin fitar da shi cikin tsarin magadanar birni, dole ne a tsabtace abu mai kura da kazanta ta hanyar kula da sinadarin mai dauke da sinadarin (don maganin farko, kwayar chlorine mai aiki dole ne ya zama 40 mg / L). Tabbatar lokacin kebancewa aƙalla aƙalla 1.5 hours;
- (2) Yawan maidawar chlorine a cikin ruwan da yake gurbatawa ya isa 10 mg / L

3 Ka'idojin Zubewa don Zubewar COVID-19 Jinin mara lafiya / ruwa mai gudana

3.1 Don zubar da karamin abu (<10 ml) na jini / ruwaye na jiki:

(1) Zabi 1: Ya kamata a rufe abubuwan da ke cikin goge-gogun da ke dauke da goge mai lalatarwa (hade da 5000 mg / L e ff elor chlorine) sannan a cire su a hankali, sannan a shafe abubuwan abin da yakamata a goge sau biyu tare da goge-gora mai dauke da chlorine (dauke da 500 MG / L e ch eacy chlorine)

(2) Zabi 2: A hankali cire abubuwan zubar da kayan da za'a iya zubar da abubuwa kamar diguna, goge, da dai sauransu, waɗanda aka tsabtace cikin 5000 mg / L dinda ke kunshe da sinadarin gurbataccen.

3.2 Don zubewar babban girma (> 10 ml) na jini da ruwayewar jiki:

(1) Da farko, sanya alamomi don nuna kasancewar zubewa;

(2) Yi hanyoyin zubar da gwargwadon zabi na 1 ko 2 da aka bayyana a kasa:

① Zabi 1: Shayar da ruwan da aka zubar na tsawon mintina 30 tare da tawul mai tsabta (dauke da peroxyacetic acid wanda zai iya sha har zuwa 1 L na ruwa a kowane tawul) sannan kuma tsaftace yankin da ke gurbata bayan cire gurbatattun abubuwa.

② Zabi 2: Rufe abubuwan da aka zubar tare da gurbataccen foda ko foda mai dauke da sinadaran shan ruwa ko kuma rufe shi gaba daya tare da kayan da za'a iya zubar da ruwa sannan sai a zuba magudanan ruwa 10,000 na MG / L mai dauke da sinadarai a jikin kayan shan ruwa (ko rufe tare da busassun tawul wanda za'a iya shafawa zuwa matakin tsattsauran tsattsauran ra'ayi). Bar don akalla minti 30 kafin a cire cire zube a hankali.

(3) Maganin kuzari, rufin asiri, amai, da dai sauransu daga masu hakuri za a tattara su cikin abubuwan da ke kunshe da kayan maye tare da kebabben sa'o'i 2 na maganin 20 na MG / LC wanda ke dauke da maganin kashewa a gwargwadon kwayar cuta zuwa 1: 2.

(4) Bayan cire abubuwan zubar da ruwa, sai a gurbata saman wuraren da aka kazantar da abubuwa ko abubuwa.

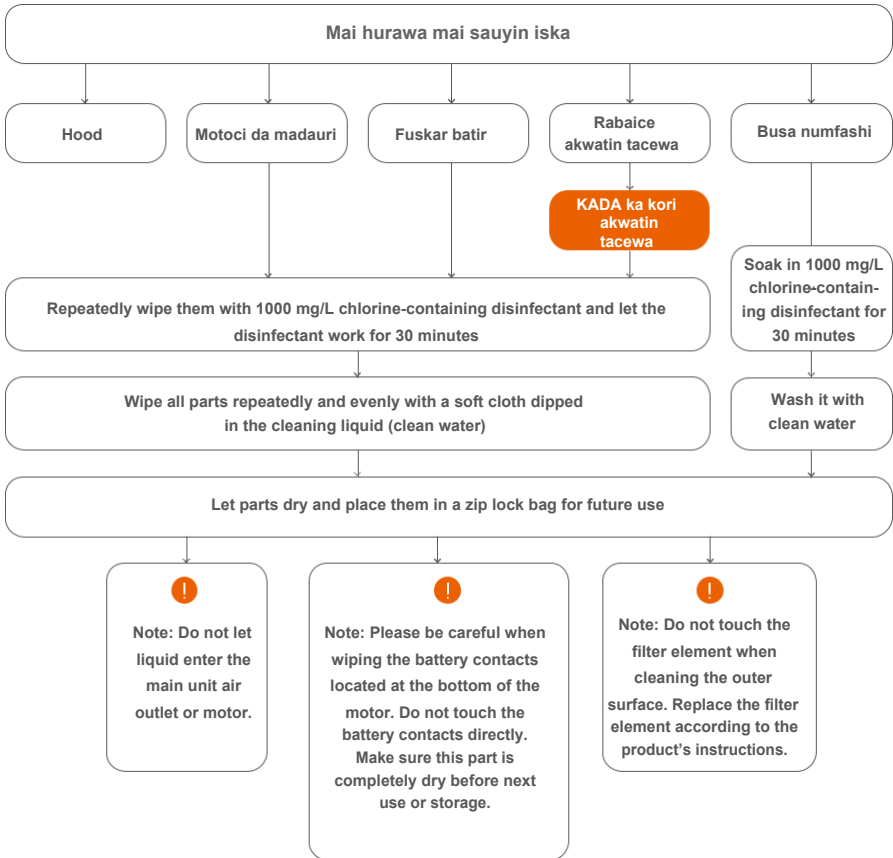
(5) Kwanta da ke riƙe da gurbataccen shara za'a iya narkewa tare da tsinkewa tare da 5,000 MG / L mai dauke da sinadarin na 30 na minti 30 sannan a tsaftace.

(6) Ya kamata a zubar da abubuwa suka tara a zaman sharar gida.

(7) Abubuwan da aka yi amfani da su yakamata a saka su cikin jakunan da za su iya zama layu biyu kuma an zubar dasu azaman sharar magani.

4 Rashin Cutar COVID-19 na'urorin likitanci masu alaƙa

4.1 Rashin kamuwa da na'urar numfasa iska



Note: The disinfection procedures for protective hood described above are only for reusable protective hoods (excluding disposable protective hoods).

4.2 Tsabtacewa da Tsaran Tsaranin Cuta don Ciwan Kwayoyi da na Bronchofibroscoy

- (1) Jiƙa ƙarshen boyayyiyar da bawuloli masu sake amfani da a cikin 0.23% peroxyacetic acid (tabbatar da maida hankali kan mai maye a gabanin amfani dashi don tabbatar da cewa zai zama sanadin);
- (2) Hada layin kanshi na kowane tashoshin endoscope, allura 0.23% ruwan pero-xyacetic acid a cikin layi tare da sirinji 50 na ML har sai ya cika, kuma jira na minti 5;
- (3) Ka cire layin da ke cikin turare sannan a wanke kowane rami da bawul na endoscope tare da goge goge na musamman
- (4) Sanya bawuloli a cikin wani sinadarin oscillator mai dauke da sinadarin enzyme don magance shi. Hada layin kanshin kowane tashoshi tare da endoscope. Shaka 0.23% peroxyacetic acid a cikin layi tare da sirinji 50 na ML kuma cire layin ci gaba na mintina 5. A sa iska a bushe shi har tsawon minti 1;
- (5) Sanya ruwa mai tsabta a cikin layi tare da sirinji 50 na milki kuma zame kullun akai-akai tsawon minti 3. Sanya iska don bushe shi na minti 1;
- (6) Yi gwajin yaduwar lemo a cikin endoscope;
- (7) Saka a cikin injin wanki na otomatik. Sanya matsanancin matakin kamuwa da cuta don magani;
- (8) Aika da na'urar zuwa cibiyar samarda iskar sha ta daskararre ta tare da sinadarin 'ethylene oxide'.

4.3 Pre-treatment of Sauran na'urorin likitanci masu amfani

- (1) Idan babu gurbataccen gurbataccen iska, jiƙa na'urar a cikin 1000 mg / L mai dauke da maganin-sinadarin chlorine na aƙalla minti 30;
- (2) Idan akwai wasu abubuwan gurbataccen iska, jiƙa na'urar a cikin 5000 MG / Llor mai dauke da sinadarin kwakwalwa na aƙalla minti 30;
- (3) Bayan bushewa, tattara kayan aikin kuma daukar cikakkun na'urorin kuma aika su zuwa cibiyar samar da daskararru.

5 Tsarin kamuwa da cuta na cututtukan cututtukan cututtukan cututtukan cututtukan da ake zargi ko tabbacin marasa lafiya

5.1 Kayan riguna

- (1) Tufafi, zanen gado, murfin gado da kayan matashin kai da marasa lafiya ke amfani da su;
- (2) labulen yankin yanki
- (3) tawul ɗin kasa da aka yi amfani dashi don tsabface muhalli.

5.2 Hanyoyin tattarawa

- (1) Da farko, shirya kayan cikin kwanon ruwan da za a iya zubar da ruwa kuma a rufe jakar da haɗin kebul ɗin da ya dace.
- (2) Sa'annan, saka wannan jaka a cikin wata jakar filastik, rufe jakar da alamomin kebul a cikin wani salon da ya dace;
- (3) A karshe, shirya jakar filastik cikin jakar masana'anta na rawaya sannan ku rufe jakar tare da haɗin kebul;
- (4) Haɗa alama ta kamuwa da cuta da sunan sashen. Aika jakar zuwa dakin wanki.

5.3 Adanawa da wanka

- (1) Ya kamata a raba yadudduka da sauran riguna masu saurin cutarwa (wadanda ba COVID-19) ba kuma a wanke su a cikin injin da aka kebe;
- (2) Wanke da rigar wadannan rigunan tare da sinadarin dake dauke da sinadarin chlorine a 90 oC ko kadan Minti 30.

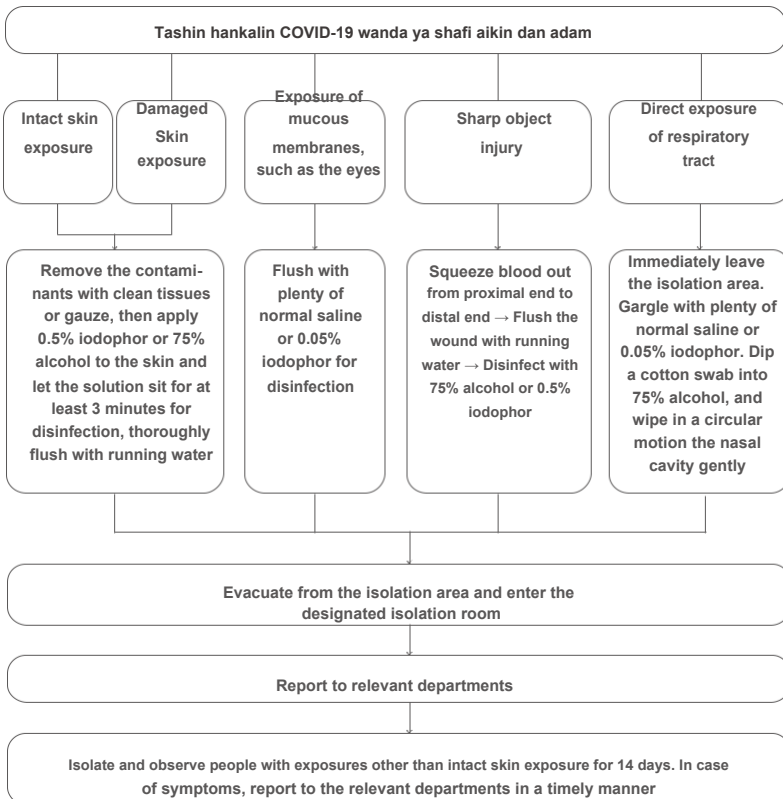
5.4 Rashin ingancin kayan aikin sufuri

- (1) Ya kamata a yi amfani da kayan aikin sufuri na musamman don jigilar kayayyaki na fata
- (2) Kayan aikin za a lalata shi nan da nan kowane lokaci bayan an yi amfani da shi don jigilar kayayyaki na fata
- (3) Kayan aikin jigilar ya kamata a goge su tare da maganin dake dauke da sinadarin chlorine (tare da chlorine 1000 mg / L). A bar mai maganin maye tsawon minti 30 kafin goge kayan aikin da tsaftataccen ruwa.

6 Hanyoyin Zartar da Tsarin COVID-19 mai Lafiya Jiki

- (1) Duk zubar da shara da aka samu daga wanda ake zargi ko aka tabbatar ko za a tabbatar za a zubar dashi azaman sharar lafiya
- (2) Sanya sharar likitan a cikin jakar magunguna mai rufi biyu-biyu, rufe jakar tare da haɗin kebul a cikin kayan ado da fesa jakar tare da 1000 mg / L mai dauke da maganin rigakafi;
- (3) Sanya abubuwa masu kaifi a cikin akwati na filastik na musamman, rufe akwatin kuma fesa akwatin tare da 1000-mg / L mai dauke da maganin-sinadarin chlorine;
- (4) Sanya sharar da aka sanya a cikin akwatin musayar shara, a sanya alamar cutar ta musamman, a rufe akwatin a cika sai a tura shi.
- (5) Canja wurin sharar gida zuwa wurin ajiya na wani lokaci na sharar asibiti tare da takamaiman hanyar a tsayayyen lokacin da ajiye sharar ta daban a wani wurin da aka kafa
- (6) Shararren likitan da aka yarda dashi ya karɓa kuma zubar dashi.

7 Hanyoyi don daukar Ayyuka na Gaggawa kan Fitar da Aiki zuwa COVID-19



- (1) Fitar Fata: Fata ta kai tsaye ta gurbataccen ruwan sha, jini, boye ko kwayoyin halitta daga mara lafiya.
- (2) Bayyanar jikin mucous: membranes na mucous, kamar idanu da kuma jijjyoyin jiki suna gurbata kai tsaye ta hanyar ruwayoyin da ke bayyane, jini, kwalliya ko kwayoyin halitta daga mara lafiya.
- (3) Raunin abu mai kaifi: Sokin jiki ta abubuwa masu kaifi wadanda aka fallasa su kai tsaye ga hanjin mara lafiya, jini, rufin asiri ko abin da ya faru.
- (4) Fitar da cutar kai tsaye ta hanjin bacci: Fifita daga abin rufe fuska, fallasa bakin ko hanci ga wani mara lafiya da aka tabbatar (1 miter away) wanda baya san abin rufe fuska.

8 Ayyuka na tiyata don Marassa lafiya ko Tabbatar da Marasa lafiya

8.1 Abubuwan buƙatu don Ayyuka na Aiki da Sta Sta PPE

- (1) Shirya mai hakuri a cikin matsanancin matsin lamba na aiki. Tabbatar da zazzabi, gumi-matsakaici da matse iska a cikin dakin aiki
- (2) Shirya duk abubuwan da ake buƙata don gudanar da aikin kuma yi amfani da abubuwan tiyata da za'a iya zubar idan ya yiwu;
- (3) Dukkanin ma'aikatan tiyata (gami da masu aikin tiyata, likitan dabbobi, likitocin wanke-wanke, da kuma masu aikin jinya a dakin aiki) yakamata su sanya PPE a cikin dakin kafin su shiga dakin aiki: Sanya yatsu biyu, abin rufe fuska na kariya daga likita (N95) , goggles na likita, rigakafin kariya na likita, murfin boot, safofin hannu na latex, da kuma kayan motsa jiki mai tsarakewar iska;
- (4) Likitocin da likitocin da ke wankin hannu su sanya sutturar kayan maye da safofin hannu a ciki da PPE kamar yadda muka ambata a sama;
- (5) Marasa lafiya yakamata sa suttattun dakanun ajiya da mashin tiyata da za a iya sanyawa gwargwadon yanayin su;
- (7) Ma'aikatan jinya na caji a cikin dakin dakin ke da alhakin isar da abubuwa daga yankin boye zuwa dakin matsanancin matsin lamba;
- (8) Yayin aikin, za a rufe dakin bulo da dakin aiki, kuma dole ne a gudanar da aikin ne kawai idan dakin aikin yana fuskantar matsanancin rashin karfi;
- (9) Za'a cire ma'aikatan da basu dace ba daga shiga wurin aiki.

8.2 Ka'idodi don Lalacewar Karshe

- (1) Sharar asibiti za a zubar dashi azaman COVID-19 mai lalatarwar asibiti
- (2) Na'urorin likitancin da za a sake amfani da su za a iya shafe su ta hanyar hanyoyin watsesar na'urorin likitancin da aka sake amfani da su daga SARS-CoV-2;
- (3) Yayan masana'antar za a shafe su da kuma zubar dasu gwargwadon hanyoyinda kebabbe na rigakafin cutar SARS-CoV-2;
- (4) Sama da abubuwa (kayan kida da na'urori da suka hada da teburin na'ura, tebur na aiki, gado mai aiki, da sauransu.)
 - ① Ganuwa na jini / mai zubar da ruwa a jiki za'a cire shi gaba daya kafin cutarwar (da za'a yi aiki da ita ta hanyoyin zubar da jini da zubar da ruwa).
 - ② Dukkanin wuraren za'a shafe su da maganin dake dauke da sinadarin 1000 mg / L da ke aiki kuma a basu damar zama tsawon mintina 30 tare da mai maganin.
- (5) Ciyayi da ganuwar:
 - ① Ganuwa na jini / mai zubar da ruwa a jiki za'a cire shi gaba daya kafin a watsar da shi (ayi aiki dashi da hanyoyin zubar da jini da zubar da ruwa).
 - ② Dukkanin wuraren za'a shafe su da maganin dake dauke da sinadarin 1000 mg / L da ke aiki kuma a basu damar zama tsawon mintina 30 tare da mai maganin.
- (6) Sama na cikin gida: Juya ff fan na raba fan (FFU). Kazantar da iska ta hanyar sakawa a iska ta wutar lantarki ta fitilar ultraviolet akalla 1 awa. Kunna FFU don tsarkake iska ta atomatik akalla awanni 2

9 Hanyoyin 9 don Gudanar da sassan jikin mutanen da aka yaudara ko aka tabbatar ko marasa lafiya ne

- (1) Sta ff PPE: staoshin ma'aikatar dole ne su tabbata sun sami cikakkiyar kariya ta saka suddukan aiki, iyakokin tiyata, safofin hannu da kuma safofin wando mai kauri tare da dogon hannayen riga, mayafin kariya na likita, kariya ta kariya ta likitanci (N95) ko kuma isashan iska mai tsarkakewa. (PAPRs), garkuwar fuska mai kariya, takalmin aiki ko takalmin roba, murfin takalmin ruwa, bakuwar ruwa ko kuma kadaici mai hana ruwa, da sauransu.
- (2) Kulawa da Jiki: Cika dukkan bufe ko raunuka da mai hakuri zai iya samu, kamar bakin, hanci, kunnuwa, dubura da budewar tracheotomy, ta amfani da kwallon auduga ko zazzage cikin 3000-5000 MG / L mai dauke da maganin rigakafi ko 0.5% peroxyacetic acid.
- (3) Wanke: Kunsu gawar tare da takardar mayafi mai rufi biyu-rigar da aka shafe tare da disse--tant, kuma a cukuda shi cikin mayafi mai rufi biyu, da aka like, da kedewar abin da yake rufe ruwan da aka sanyaya shi da sinadarai na sinadarai.
- (4) Za a tura gawar da sanda a kebe daga cikin asibiti ta wurin gurbatawar zuwa wurin mai hawa na musamman, daga cikin sashen sannan kuma a kai shi kai tsaye zuwa wani takamaiman wuri don konawa da wata motar musamman da wuri-wuri.
- (5) Yankin shararwa na karshe: A yi lalata na karshe na Ward da mai lif.

V. Taimako na dijital don Rigakafin Cututtuka da Kulawa

1 Rage Hadarin kamuwa da cutarwa yayin da marassa lafiya ke neman Neman Lafiya

(1) Shiryar da jama'a don samun dama ga sabis na gaggawa ba kamar cututtukan cututtukan fata na kan layi don rage yawan baki a cikin wuraren kiwon lafiya. Yin hakan yana rage hadarin kamuwa da cuta ta haɗu.

(2) Marasa lafiya waɗanda dole ne su ziyarci wuraren kiwon lafiya ya kamata yin alkawari ta sauran hanyoyi, gami da mashigar Intanet, wanda ke ba da jagora mai mahimmanci a cikin sufuri, filin ajiye motoci, lokacin isowa, matakan kariya, bayanin jigon, kewayawa na cikin gida, da dai sauransu. a gaba don inganta ingancin ganewar asali da magani da kuma iyakance tsawon ziyarar mai haƙuri.

(3) coarfafa marasa lafiya suyi cikakkiyar fa'idodin na'urorin sabis na dijital don guje wa hulɗa tare da wasu don rage hadarin kamuwa da cututtukan giciye.

2 Workarancin Intarfin Aiki da Haɗarin kamuwa da Ma'aikatan Kiwon lafiya

(1) Tattara ilimin da aka raba da masaniyar masana ta hanyar tuntuɓar nesa da kungiyar masu yawa (MDT) don samar da ingantacciyar warkewar cutar don haɗuwa da al'amuran rikitarwa.

(2) Takeauki zagaye na tafi-da-gidanka don yin nesa don fuskantar haɗarin haɗari mara haɓakawa da karfin aikin ma'aikatan kiwon lafiya yayin adana abubuwan kariya.

(3) Samun damar shiga sababbin yanayin lafiyar marasa lafiya ta hanyar lantarki ta hanyar lambobin QR na lafiya (bayanin kula: ana buƙatar kowa ya sami lambar GREEN ta hanyar tsarin QR na kiwon lafiya don tafiya a kusa da birni) da kuma tambayoyin kan layi a gaba don samar da jagora na marasa lafiya ga marasa lafiya. , musamman waɗanda ke da zazzabi ko waɗanda ake zargi da laifi, yayin da a hankali suke hana haɗarin kamuwa da cuta.

(4) Rikodin lafiyar lafiyar lantarki na marasa lafiya a cikin asibitocin zazzabi da kuma tsarin CT mai daukar hoto na AI don COVID-19 na iya taimakawa wajen rage karfin aikin, cikin hanzari gano kararrun mutane da ake zargi da kuma guje wa bayyanar cututtuka.

3 Amsar gaggawa cikin buƙatun gaggawa na daukar COVID-19

(1) Kayan aikin dijital na asali wanda tsarin asibiti na tushen girgije ke ba da damar amfani da tsarin bayanar da ake buƙata don ba da amsa ga gaggawa game da annobar, kamar tsarin dijital wanda aka shirya don sababbin ɗakunan shanyan zazzabi, ɗakunan lura da zazzabi da kuma sassan kebewa.

(2) Amfani da tsarin bayanar asibiti bisa tsarin kayan sadarwar Intanet don gudanar da horarwar kan layi don ma'aikatan kiwon lafiya da tsarin jigilar kai-danna sau ɗaya, da kuma saukaƙe aikin da tallafawa injiniyan don yin aikin kiyayewa da sabbin ayyuka sabuntawa don kulawar likita.

【FAHZU Internert + Asibiti - Misali don Kiwan lafiya a Kan layi】

Tun bayan barkewar COVID 19, Asibitin FAHZU + da sauri ya kasance don inganta lafiyar yanar gizo ta hanyar Zhejiang's Medical Medical Platform tare da shawarwarin kan layi na kyauta na awa 24 kyauta, yana ba da sabis na telemedicine ga marasa lafiya a China har ma a duk duniya. An baiwa marasa lafiya damar zuwa matakin farko na aikin likita na FAHZU a gida, wanda ke rage damar yadawa da kamuwa da cuta sakamakon ziyarar zuwa asibiti. Ya zuwa 14 Maris, mutane sama da 10,000 sun yi amfani da sabis din kan layi na FAHZU + asibitin kan layi.

• Umarnin don Zhejiang Online Platform Medical:

- ① Zazzage Alipay app;
- ② Bude Alipay (Sigar China) kuma sami "Zhejiang Provincial Online Medical Platform
- ③ Zabi asibiti (Asibitin Farko na Asibiti, Makarantar Medicine ta Jami'ar Zhejiang);
- ④ Sanya tambayarku kuma jira likita don amsa
- ⑤ Sanarwa zata tashi lokacin da likita ya amsa. Sannan ka bude Alipay ka latsa abokai;
- ⑥ Danna Zhejiang Online Platform Medical Platinio don ganin karin cikakkun bayanai kuma fara tattaunawar ku.

【Kafa dandamali kan Magungunan Likitocin Kasa da Kasa na Asibitin farko na Asibiti, Makarantar Medicine ta Jami'ar Zhejiang.】

Sakamakon yaduwar COVID-19, Cutar Farko ta A ffi wadda ta gabata, asibitin koyarwa na Jami'ar Zhejiang (FAHZU) da Alibaba sun kafa theungiyar Tsarin Kwararrun Likitocin Lafiya na FAHZU tare da niyyar inganta ingancin kulawa da kulawa da kuma inganta haɓaka Raba dukiyar duniya. Dandalin ya ba masana kwararru a duk duniya damar hadewa da raba masaniyarsu ta kwarewa a yaki da COVID-19 ta hanyar isar da sakon kai tsaye tare da fassarar-lokaci, tarukan bidiyo na nesa, da sauransu.

• Umarni akan Ka'idar sadarwa na Kwararru na Likita na Kasa na Asibitin Farko na Asibiti, Makarantar Medicine ta Jami'ar Zhejiang.

- ① Ziyarci www.dingtalk.com/en don saukar da DingTalk app
- ② Yi rajista tare da kebabben bayaninka (Suna da Lambar Waya) kuma shiga
- ③ Aiatar da shiga cikin icationungiyar Sadarwar Expertwararrun Likitocin Lafiya na FAHZU: Hanyar 1: Hada ta lambar kungiyar. Zabi "Lambobin sadarwa"> "Hada "> "Hada
- ④ Cika bayananku don shiga. Shigar da sunan ku, kasar ku da cibiyar likitanci
- ⑤ Shiga cikin tattaunawar rukuni na FAHZU bayan an amince da mai gudanarwa.
- ⑥ Bayan shiga rukunin tattaunawar rukuni, likitan likita ff na iya aika sakonnin nan take ta fassarar AI, karɓar jagorar bidiyon nesa, da samun dama ga jagororin likita nalikita.



Kashi Na Biyu Bayanar cututtuka da jiyya

I. Kebabbiyar, Haɗin kai da Gudanar da Mahalli

FAHZU asibiti ne da aka keɓe don marasa lafiya na COVID-19, musamman mawuyacin hali da masu rashin lafiya waɗanda yanayin su ke canzawa da sauri, sau da yawa tare da gabobin da yawa da cutar kuma suna buƙatar tallafi daga kungiyar masu yawa (MDT). Tun bayan barkewar cutar, FAHZU ya kafa kungiyar kwararrun da suka kunshi likitoci daga Sashin Cututtukan Cutar, Ciwon Magunguna, ICU, Labaran Magunguna, Rediyo, Dandalin kwakwalwa, Magunguna, Magungunan gargaji na gargajiyar, Ilimin halin ,an Adam, Magungunan Noma, Tafiya, Lafiya, Nursing, da dai sauransu. An kafa cikakkiyar ganewar asali da tsarin aikin magani wanda likitoci duka ciki da waje sassan keɓewa zasu iya tattauna yanayin marasa lafiya kowace rana ta hanyar taron bidiyo. Wannan yana basu damar tantance dabarun kimiyya, hade da tsara hanyoyin magani ga kowane mai tsananin rauni da rashin lafiya.

Yanke shawarar yanke hukunci shine mabudin tattaunawar MDT. A yayin tattaunawar, kwararru daga sassan nahiyoyi sun fi mayar da hankali kan batutuwan da suka shafi fannonin su na musamman da mahimmin batutuwan kamuwa da cutar da magani. Maganin karshe na magani ana kaddara ta kwararrun masanan ta hanyar tattaunawa daban-daban na ra'ayoyi da shawarwari.

Binciken tsari shine tushen tattaunawar MDT. Tsosaffi marasa lafiya da ke da yanayin rashin lafiya suna iya kusan yin rashin lafiya. Yayin da yake sa ido sosai game da ci gaban COVID-19, matsayin asali na haƙuri, rikice-rikice da sakamakon binciken yau da kullun ya kamata a bincika su gabaɗaya don ganin yadda cutar za ta ci gaba. Wajibi ne a shiga tsakani don dakile cutar daga tabarbarewa kuma a dauki matakan kariya kamar rigakafi, maganin oxygen, da tallafin abinci mai gina jiki.

Manufar tattaunawar MDT ita ce cimma nasarar kebabben magani. Yakamata a daidaita tsarin kulawa da kowane mutum yayin la'akari da bambance-bambancen tsakanin mutane, darussan cututtuka, da nau'in hakuri.

Kwarewamu ita ce hadin gwiwar MDT na iya inganta habakar bayyanar cututtuka da lura da COVID-19.

II. Etiology da lamarancin Manuniya



Gano SARS-CoV-2 Acidik Acid

1.1 Samun Takamai

Samfuran da suka dace, hanyoyin tattarawa da lokacin tattara abubuwa suna da mahimmanci don habakar ganowa. Musamman samfurori sun haɗa da: samfuran samaniya na sama (samfuran fitowar hanji, hanjin hanci, hancin nasopharyngeal), kananan hanyoyin jirgin sama (kwayoyin ciki, hutu, hanya da jijiyoyi), jini, feces, fitsari da kuma boye hanyoyin haɗin gwiwa. Sputum da sauran kananan kwayar jijiyoyin kwayar cuta suna da babban inganci na kwayoyin nucleic kuma ya kamata a tattara su da kyau. SARS-CoV-2 zai fi haɓakawa a cikin nau'ikan sel na alveolar II (AT2) da gangar jikin zubar jini a boye kwana 3 zuwa 5 bayan fara cutar. Sabili da haka, idan gwajin nucleic acid bai yi kyau ba a farkon, samfurori ya kamata a ci gaba da tattara su kuma gwada su a cikin kwanaki masu zuwa

1.2 Gano Acidic Acid

Gwajin kwakwalwar kwakwalwar kwakwalwar kwayar cuta shine hanyar da aka gwammace don gano kamuwa da cutar SARS-CoV-2. Hanyar gwaji bisa ga umarnin kit ɗin kamar haka: samfurori samfurori ne da aka riga aka sarrafa su, kuma kwayar cutar ta lysed don cire acid na nucleic. Musamman takamaiman kwayoyin halittar SARS-CoV-2, watau Open Karatun Tsarin 1a / b (ORF1a / b), furotin na nucleocapsid (N), da kuma ambulaf ambulaf (E), daga nan ne aka bunkasa su ta hanyar fasahar PCR ta zamani-zamani. Kwayoyin da aka fadada suna ganowa ta hanyar karfi mai karfi. Sharuɗɗan sakamako na sakamako na nucleic acid sune: ORF1a / b gene yana tabbatacce, kuma / ko kuma N gene / E gene yana da kyau. Habakar gano kwayoyin nucleic daga nau'ikan samfurori masu yawa na iya inganta daidaitaccen ganewar asali. Daga cikin marasa lafiya waɗanda ke da tabbataccen kwayar kwayar nucleic acid a cikin tsarin numfashi, kusan 30% - 40% na waɗannan marasa lafiya sun gano kwayar cutar ta nucleic acid a cikin jini kuma kusan 50% - 60% na marasa lafiya sun gano kwayar cutar ta nucleic acid a cikin feces. Koyaya, ingantaccen kimar gwajin kwayoyin acid a cikin samfuran fitsari ya ragu sosai. Hade gwaje-gwaje tare da samfurori daga shanyewar numfashi, feces, jini da sauran nau'ikan samfurori suna da taimako don habakar halayyar kwayar cuta na abubuwan da ake zargi, kulawa da kula da lafiya da kuma kula da matakan warewar bayan fitarwa.

Barkewar Cutar da Al'adu



Dole ne a yi al'adar cutar ta kwayar cuta a cikin dakin gwaje-gwaje tare da Canjin Biosafety Level 3 (BSL-3). An bayyana tsarin a takaice kamar haka: Ana samun samfuran sabbin kwayar cuta, kwayar fata, da sauransu kuma an haɗa su a cikin kwayoyin Vero-E6 don al'adun kwayar cuta. Ana lura da cytoathatic effect (CPE) bayan awoyi 96. Gano sinadarin nucleic acid a cikin matsakaiciyar al'ada yana nuna al'adar nasara. Matsakaicin ma'aurin kwayar cuta ta kwayar cuta: Bayan dilging maida hankali kan kwayar kwayar cuta ta hanyar 10 na jerin, TCID50 an kaddara shi ta hanyar micro-cytopathic. In ba haka ba, viral viver an kaddara shi ta hanyar kebabben nau'in plaque (PFU)

3 Gano Maganin Anti Magani

An samar da takamaiman maganin rigakafi bayan kamuwa da cutar SARS-CoV-2. Hanyoyi na kayyadaddun maganin kwakwalwar kwayar cuta sun hada da colloidal zinari immunochromatography, ELISA, chemiluminescence immunoassay, da dai sauransu Igiya-takamaiman IgM, ko takamaiman IgG antibody titer a cikin dawo da lokaci ≥ 4 sau mafi girma sama da wancan a cikin mummunan lokaci, ana iya amfani dashi azaman bincike na bincike don zargin marasa lafiya tare da gano mummunan acidic acid. A yayin sa-ido na gaba, IgM ana iya gano shi kwanaki 10 bayan bayyanar cututtuka kuma IgG ana iya gano shi kwanaki 12 bayan farawar alama. A kwayar cutar hoto ko bidiyo mai zagaya yanar gizo a hankali ya ragu tare da karuwa a cikin matakan tsufa na jini.

4 Gano Manuniya Na Amsar Alkairi

An ba da shawarar gudanar da gwaje-gwaje na furotin na C-reactive, procalcitonin, ferritin, D-dimer, jimlar da kananan kananan abubuwa na lymphocytes, IL-4, IL-6, IL-10, TNF- α , INF- γ da sauran alamun nuna kumburi. da matsayin rigakafi, wanda zai iya taimakawa wajen kimanta ci gaban asibiti, fadakarwa mai tsanani da mawuyacin halaye, da kuma samar da tushen dabarun dabarun magani. Yawancin marasa lafiya tare da COVID-19 suna da matakai al'ada na procalcitonin tare da matakan habakar furotin na C-mai canzawa. Matsakaicin furotin na C-mai amsawa mai sauri da mahimmanci ya nuna yiwuwar kamuwa da cuta sakandare. Matakan D-dimer yana daƙaƙawa sosai a cikin mawuyacin yanayi, wanda shine haɗarin haɗari ga mummunan ci gaban. Marasa lafiya tare da kananan jimlar kwayoyin cutar lymphocytes a farkon cutar gaba daya suna da mummunan hangen nesa. Marasa lafiya marasa lafiya suna da raguwar ci gaba sosai na lymphocytes jini na gefe. Matakan bayyanar cututtuka na IL-6 da IL-10 a cikin marasa lafiya masu rauni suna karuwa sosai. Kulawa da matakan IL-6 da IL-10 yana da taimako don tantance haɗarin ci gaba zuwa mummunan yanayin.

Gano Kwayoyin Bacterial ko Ciwon Futsi

Marasa lafiya da rashin lafiya marasa lafiya suna da saurin kamuwa da kwayan cuta ko cututtukan fungal. Ya kamata a tattara samfuran da suka dace daga wurin kamuwa da cuta don al'adun kwayoyin cuta ko al'adun fungal. Idan ana zargin kamuwa da cutar huhu, kwayar sputum daga zurfi a cikin huhu, ascherates, hanji na hanji, da samfuran buroshi ya kamata a tattara don al'adu. Ya kamata a yi al'adun jini na lokaci-lokaci a cikin masu haƙuri da zazzabi. Ya kamata al'adar jinsi ta zana daga mahaukuta ko catheters yakamata a yi a cikin marasa lafiya tare da waɗanda ake zaton sepsis waɗanda suke da babban cocin kaura. An ba da shawarar su dauki gwajin G jini da gwajin GM a kalla sau biyu a mako ban da al'adar fungal

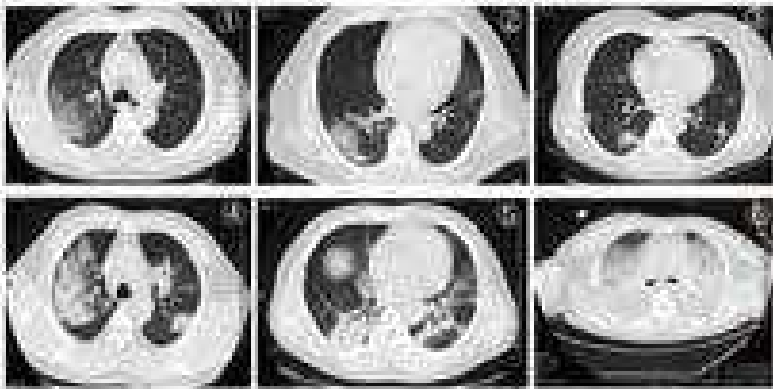
Kariyar dakin gwaje-gwaje

Ya kamata a kayyade matakan kariya na biosafety bisa la'akari da matakan haɗarin matakan gwaji. Ya kamata a dauki kariya ta mutum daidai da bukatun kariyar dakin gwaje-gwajen BSL-3 don tarin samfuran huhun numfashi, gano sinadarin acid da ayyukan al'adun kwayoyin cuta. Dole ne a aiwatar da kariya ta mutum daidai da bukatar kariya ta dakin gwaje-gwaje na BSL-2 don nazarin halittu, gwaje-gwaje na rigakafi da sauran gwaje-gwaje na yau da kullun. Yakamata a kwashe jigilar kayayyaki a cikin tankokin jigilar kayayyaki na musamman da kwalaye waɗanda suka dace da bukatun biosafety. Duk sharar dakin gwaje-gwaje yakamata a kiyaye shi.

III. Gano binciken Abubuwan Cutar COVID-19

Hoto na Thoracic yana da fa'ida sosai a cikin binciken COVID-19, saka idanu akan warkewar magani, da kuma kimantawa na hakuri. Babban shawarar CT ta fi dacewa. X-haskoki mai daukar hoto suna da taimako ga marasa lafiya masu fama da rashin lafiya marasa karfi. CT don kimantawa kan marasa lafiya da COVID-19 yawanci ana yin su a ranar shigar, ko kuma idan ba a kai ga warkewar maganin warkewa ba, ana iya sake yin shi bayan kwanaki 2 zuwa 3. Idan alamun sun tabbata ko inganta bayan magani, ana iya sake duba kirjin CT na kirji bayan kwanaki 5 zuwa 7. X-haskoki na yau da kullun masu daukar hoto ana bada shawarar ga marasa lafiya masu fama da rashin lafiya.

COVID-19 a farkon matakin sau da yawa yana gabatarwa tare da inuwa iri-iri na inuwa ko kuma gilashin kasa a cikin huhun huhun, yanki mai kaya, da kananan kananan lobes akan kirjin CT. Dogon tsoka da raunuka galibi yana da alaƙa da roƙon mutum. Thickening sewnal thickening da intralobular tsakuwar ciki, nuna a matsayin subcural sake fasalin wato "mahaukaci paving" tsarin, ana lura a wasu gilashin kasa gilashi. Numberaramin adadin lokuta na iya nuna rashin karfi, rauni na gida, ko rauni na / nonolar / patchy da aka rarraba daidai da bronchus tare da canjin yanayin gilashin kasa. Cutar ci gaban cuta mafi yawa ana faruwa a cikin kwanaki 7-10, tare da karuwa da haɓaka da yawa daga raunuka idan aka kwatanta da hotunan da suka gabata, da kuma raunuka raunuka tare da alamar iskancin iska. Maganganu masu mahimmanci na iya nuna kara haɓaka haɗin gwiwa, tare da daukacin kwayar huhu yana nuna karuwar opacity, wani lokacin da aka sani da "farin huhun". Bayan an sami saukin yanayin, ana iya tunawa gilashin gilashin kasa gaba daya, kuma wasu raunuka masu karfi zasu bar raunin fibrotic ko maimaitawar sakewa. Ya kamata a lura da marassa lafiya da ke da sa hannun yawa, musamman wadanda ke da rauni ta raunuka saboda tasirin cutar. Wadanda ke da alamun CT pulmo-nary bayanannun ya kamata a ware su kuma a ci gaba da gwajin gwajin nucleic acid koda kuwa gwajin makamin nucleic na SAR-CoV-2 mara kyau.



Abubuwan da aka saba dasu na CT na COVID-19:

Hoto 1, Hoto na 2: shinge hanyoyin gilashi;

Hoto 3: nodules da patchy exudation;

Hoto na 4, Hoto na 5: raunuka da haɓaka dimbin yawa;

Hoto 6: di ff amfani da haɓaka, "farin huhun".

IV. Aikace-aikacen Bronchoscopy a cikin Ciwo da Gudanar da Marasa lafiya na COVID-19

M isasshen kwakwalwar kwayar cuta yana da daidaituwa, mai saukin amfani, kuma an jure shi da kyau a cikin injin da ke motsa shi

COVID-19 marasa lafiya. Aikace-aikacen sa sun hada

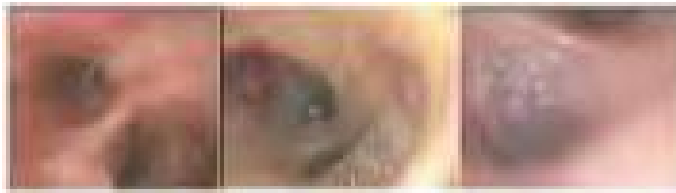
(1) Samun samfuran samfuran huhu daga kananan na numfashi (i.e. sputum, endotracheal aspirate, bronchoalveolar lavage) don SARS-CoV-2 ko wasu kwayoyin cuta suna jagorantar zaɓin magungunan rigakafin da suka dace, wanda zai iya haifar da fa'idodin asibiti. Experiwarewarmu tana nuna cewa samfuran kananan na numfashi na iya zama tabbatacce ga SAR-CoV-2 fiye da samfuran numfashi na sama.

(2) Za a iya amfani da shi don buɗe wurin da aka zubar da jini, dakatarwar da cutar kansa, cire maniyyi ko cirewar kwankwasa jini; idan an gano wurin da ake zubar da jini ta hanyar bronchoscopy, allurar cikin gida na ruwan sanyi, epinephrine, vasopressin, ko fibrin kuma ana iya yin maganin laser ta hanyar bronchoscope.

(3) Taimakawa wajen kirkiro hanyoyin iska ta wucin gadi; jagora traubal intubation ko percutane-ous tracheotomy.

(4) Magunguna kamar jiko na α -interferon da N-acetylcysteine za a iya sarrafa su ta hanyar bronchoscope.

Ra'ayin Bronchoscopic na yawan cututtukan mucosal hyperemia, kumburi, iska mai kama da ido a cikin lumen da jelly-kamar sputum yana toshe hanyar jirgin sama a cikin marasa lafiya marasa lafiya. (Hoto na 7).



Hoto na 7: Bayyananun Bronchoscopic na COVID-19: koshin mucosa na kumburi da cunkoso; adadi mai narkewa a cikin lumen

V. Bayyanan cututtuka da kuma Rashin daidaituwa na COVID-19

Ya kamata a gudanar da bincike na farko, magani da kuma warewa a duk lokacin da ya yiwu. Kulawa mai zurfi game da hoton huhun huhu, kididdigar oxygenation da matakan cytokine suna taimaka wajen gano farkon marasa lafiya waɗanda zasu iya haɓakawa cikin matsanancin maganganu masu mahimmanci. Sakamakon sakamako mai kyau na nucleic acid na SARS-CoV-2 shine ma'aunin zinare don kamuwa da cutar COVID-19. Koyaya, yin la'akari da yiwuwar yin kuskuren kuskure a cikin gano kwayoyin nucleic acid, ana iya bi da abubuwan da ake zargi da alamun halayen halayen CT a matsayin abubuwan da aka tabbatar ko da kuwa gwajin kwayoyin acid ba su da kyau. Kada rarrabuwa da ci gaba na gwaje-gwajen samfurori da yawa a waɗannan lokuta.

Ka'idojin ganewar asali sun bi ka'idoji don Cutar Cutar Cutar da kuma maganin COVID-2019. Shari'ar da aka tabbatar tana dogara ne da tarihin cutar cuta (ciki har da watsa tari), bayyanar cututtuka (zazzabi da alamu na huhun ciki), hoton huhun ciki, da kuma sakamakon binciken acidic-coV-2 na kaddamar da sinadarin acid da kebabbiyar kwayoyin cuta.

Karatun Asibiti:

● Mallakar Kuraje

Alamar asibiti tana da sauki kuma babu alamun bayyanar cutar huhu a cikin hoto.

● Matsakaitan Matsakaici

Marasa lafiya suna da alamu kamar zazzabi da alamun cutar numfashi, da sauransu kuma ana iya ganin bayyanuwar kwayar cutar huhun ciki a cikin hoto.

● Mummunan lokuta

Tsofaffi waɗanda suka haɗu da kowane ɗayan waɗannan sharuɗɗa masu zuwa: kudurin numfashi ≥ 30 numfashi / min; jijiyar oxygen $\leq 93\%$ a wani wurin hutawa; iskar shanyewar jijiyoyin jini (PaO₂) / taro mai dauke da sinadarin oxygen (FiO₂) ≤ 300 mmHg. Marasa lafiya tare da > 50% raunuka ci gaba a cikin 24 zuwa 48 hours a cikin hoton huhun ya kamata a kula da su a matsayin mai tsanani lokuta.

● Mummunan Magabata

Haɗu da kowane sha ɗaya daga cikin waɗannan sharuɗɗa: abin da ya faru na gazawar numfashi wanda ke buƙatar samun iska; gaban rawar jiki; sauran gazawar kwayoyin da ke buƙatar saka idanu da kulawa a cikin ICU.

Ana kara rarrabuwar cututtukan m zuwa farkon, tsakiya da na karshe bisa ga jigilar oxygenation da kuma yarda da tsarin numfashi.

- Farkon matakin: 100 mmHg <oxygenation index ≤ 150 mmHg; yarda da tsarin numfashi ≥ 30 mL / cmH₂O; ba tare da gazawar kwayoyin sabanin huhun huhun ba. Mai hakuri yana da kyakkyawar dama don murmurewa ta hanyar maganin rigakafi mai aiki, guguwar anti-cytokine, da magani mai tallafawa.
- Matsayi na Tsakiya: 60 mmHg <oxygenation index ≤ 100 mmHg; 30 mL / cmH₂O> bin tsarin numfashi ≥ 15 mL / cmH₂O; mai yiwuwa wasu rikice-rikice na jiki masu sassauka ko matsakaiciyar karancin gabobin jiki.
- Stage Matsayin Late: indexation ≤ 60 mmHg; yarda da tsarin numfashi <15 mL / cmH₂O; ff amfani da haɗewar huhu biyu waɗanda ke buƙatar amfani da ECMO; ko gazawar wasu mahimman gabobin. Hadarin mace-mace yana karuwa sosai.

VI. Magungunan rigakafi don kawar da Pathogens

Magungunan rigakafi na farko na iya rage hadarin mummunan lamura masu mahimmanci. Kodayake babu wata shaidar asibiti don magungunan rigakafi na yau da kullun, a halin yanzu dabarun antiviral da suka danganci halayen SAR-CoV-2 ana karɓar su bisa ga toa'idoji don Ciwo da Kula da COVID-19: Yin rigakafi, Gudanarwa, Bincike da Gudanarwa.

1 Magungunan kwayar cuta

A FAHZU, lopinavir / ritonavir (2 capsules, po q12h) hade da arbidol (200 mg po q12h) ana amfani dasu azaman tsarin asali. Daga kwarewar jiyya na marasa lafiya 49 a asibiti, matsakaicin lokacin da za a iya cin nasara gwajin kwayar acid na boye na farkon shine kwanaki 12 (95% CI: kwanaki 8-15). Matsakaicin sakamakon gwajin kwayoyin nucleic acid (mara kyau fiye da sau 2 a jere tare da tazara \geq 24h) ya kasance kwanaki 13.5 (95% CI: 9.5 - 17.5 kwana).

Idan tsarin kulawa na yau da kullun ba shi da ma'ana, ana iya amfani da kwayar chloroquine phosphate akan tsofaffi tsakanin 18-65 shekara (nauyi \geq 50 kg: 500 MG; nauyin \leq 50 kg: 500 MG karo na kwana biyu na farko, 500 mg qd don bin biyar kwana).Ana ba da shawarar Interferon nebulization a cikin ladabi don Bayyanar cututtuka da kuma lura da COVID-19. Mun bada shawara cewa yakamata a yi shi a cikin raunanan mara jituwa maimakon kirar gaba daya saboda yiwuwar watsawar iska.Darunavir / cobicistat yana da wasu matakan aikin rigakafi a cikin gwajin boyewar kwayar cuta a cikin vitro, dangane da kwarewar jiyya na marasa lafiya na cutar kanjamau, abubuwan da ke faruwa ba su da sauƙi. Ga marasa lafiya waƙanda ba su da haƙuri ga lopinavir / ritonavir, darunavir / cobici-stat (1 kwamfutar hannu qd) ko favipiravir (farawa na 1600 MG wanda ya biyo bayan mg 600 mg) wani zaɓi ne na daban bayan sake nazarin dabi'un. Ba a bada shawarar yin amfani da magunguna uku ko sama da haka a lokaci daya ba

2 Course na Jiyya

Aikin magani na chloroquine phosphate ya kamata ya zama bai wuce kwanaki 7 ba. Ba a tantance hanyar kulawa da sauran hanyoyin ba kuma yawanci yana kusan makonni biyu. Yakamata a tsayar da magungunan rigakafi idan sakamakon gwajin kwayoyin acid wanda aka samo daga samfuran sputum ya kasance marasa kyau fiye da sau 3

VII. Anti-shock da Anti-hypoxemia

A yayin ci gaba daga matsanancin rauni zuwa matsanancin rashin lafiya, marasa lafiya na iya haɓaka hypoxemia mai karfi, cytokine cascade da mummunan cututtuka waƙanda zasu iya haɓaka cikin girgiza, rikicewar kyayyar nama, har ma da gazawar kwayoyin cuta da yawa. Magunguna yana nufin cirewa da kuma farfado da ruwa. Tsarin tallafin hanta na wucin gadi (ALSS) da tsarakewar jini na iya rage yawan maganganu masu kara kuzari da kuma abubuwan da suka shafi cytokine da kuma hana faruwar girgiza, cututtukan zuciya da rashin lafiyar numfashi.

1 Amfani da Glucocorticoids lokacin da ake bukata

Amfani mai dacewa da ɗan gajeren lokaci na corticosteroids don hana cytokine cascade kuma don hana ci gaba da cutar ya kamata a la'akari da marasa lafiya tare da matsananciyar cutar COVID-19 da wuri-wuri. Koyaya, ya kamata a guji babban adadin glucocorticoids saboda abubuwan da suka faru da rikice-rikice.

1.1 Nunawa na Corticosteroids

①ga waɗanda ke cikin mawuyacin hali kuma masu tsananin rauni;

② ga masu fama da zazzabi mai yawan zafin jiki (zazzabi sama da 39 ° C);

- ③ Those ga wadanda kwalajin tomography (CT) wanda ya nuna karancin gilashin kasa ko kuma sama da kashi 30 cikin dari na huhu;
- ④ Those ga wadanda wadanda CT suka nuna ci gaba cikin sauri (fiye da 50% yankin da ke cikin hotunan CT na huhun ciki a cikin awanni 48);
- ⑤ Ga wadanda IL-6 ke saman ≥ 5 ULN.1.2

Aikace-aikace na Corticosteroids

Methylprednisolone na yau da kullun a cikin kashi na 0.75 ~ 1.5 mg / kg a ciki sau ɗaya a rana (kusan 40 MG sau ɗaya ko sau biyu a rana) ana bada shawarar. Koyaya, methylprednisolone a kashi 40 MG q12h ana iya la'akari dashi ga marasa lafiya da faduwar zafin jiki ko kuma ga marasa lafiya da haɓakar cytokines masu karfi a karkashin allurai na yau da kullun na steroid. Ko da methylprednisolone a kashi 40 MG-80 MG q12h ana iya la'akari dashi don lokuta masu mahimmanci. Kulawa da yawan zafin jiki na jiki, yawan jijiyar oxygen, tsarin jini, sinadarin C-mai kunnawa, cytokines, bayanin kimiya na kimiya da CT huhu a kowane kwana 2 zuwa 3 a yayin aikin jiyya kamar yadda ya cancanta. Za'a iya rage yawan sashi na methylprednisolone kowane kwanaki 3 zuwa 5 idan yanayin lafiyar marasa lafiya ya inganta, yawan zafin jiki na jiki, ko kuma raunukan da ke tattare da cutar ta CT suna karuwa sosai. Oral methylprednisolone (Medrol) sau ɗaya a rana ana bada shawarar lokacin da aka rage kwayar cutar zuwa 20 MG kowace rana. Hanyar corticosteroids ba a bayyana shi ba; wasu masana sun ba da shawarar dakatar da maganin corticosteroids yayin da kusan an dawo da marasa lafiya

1.3 Tunani na Musamman yayin Jiyya

- ① Ing gwaji na TB ta T-SPOT assay, HBV da HCV ta hanyar antibody assay assay kamata a yi kafin maganin corticosteroid;;
- ② Could proton inhibitors na famfo ana iya yin la'akari dashi don hana rikitarwa;
- ③ Should Yakamata a sanya idanu a cikin glucose na jini. Ya kamata a kula da glucose na jini tare da insulin lokacin da ya cancanta;
- ④ Low serum potassium ya kamata a gyara;
- ⑤ Yakamata a kula da aikin hanta a hankali;
- ⑥ May Ana iya amfani da maganin gargajiya na kasar Sin ga masu cutar da gumi;
- ⑦ Za'a iya gudanar da maganin hana daukar ciki-na wani lokaci na marasa lafiya da ke fama da rashin bacci.

2 Jiyyar cutar hanta ta wucin gadi don Rage Cytokine Cascade

Tsarin tallafin hanta na wucin gadi (ALSS) na iya gudanar da musayar plasma, adsorption, turare, da kuma tace masu matsakaitan maganganu irin su endotoxins da abubuwa masu cutarwa na karamin kwayoyi ko matsakaitan nauyi. Hakanan zai iya samar da albumum, dalilai na coagulation, daidaita sikelin ruwa, electrolytes da acid-base rabo, da kuma bayyananniyar guguwar anti-cytokine, girgiza, kumburin huhu, et al. Yin hakan har ila yau yana iya taimakawa haɓaka ayyukan kwayoyin cuta da yawa ciki har da hanta da koda. Don haka, yana iya haɓaka nasarar jiyya da rage mutuwar masu hakuri

2.1 Alamar ga ALSS

- ① Ator nuna alama mai kumburi (kamar IL-6) yana tashi zuwa ≥ 5 ULN, ko hauhawar farashin shine lokaci is1 a kowace rana;
- ② yankin da aka haɗa da ciwon huhun CT ko hotunan X-%10% ci gaban kowace rana;
- ③ Required Ana bukatar tsarin tallafawa hanta na wucin gadi don maganin cututtukan da suke kamuwa. Taron marasa lafiya ① + ②, ko ganawar marasa lafiya③.

2.2 Contraindications

Babu wani cikakken magani a cikin kula da marasa lafiyar masu fama da rashin lafiya. Koyaya, yakamata a nisanta ALSS a cikin wadannan halaye masu zuwa:

- ① Cutar mai zubda jini ko kuma ta yada coagulation;
- ② Who Wadanda ke da rashin lafiyar jiki ga abubuwa suka shafi jini ko kwayoyi da ake amfani dasu wajen aikin jiyaya kamar plasma, heparin da protamine;
- ③ Cutar cututtukan cututtukan hanji ko na rauni mai tsanani
- ④ Failure Rashin lafiyar zuciya, rarrabuwa akan aikin zuciya \geq aji III;
- ⑤ Rashin tausayi da tsawa;
- ⑥ Mai tsananin arrhythmia.

Musayar plasma hade da plasma adsorption ko dual plasma kwayoyin adsorption, turare, da tacewa ana bada shawarar gwargwadon yanayin mara lafiyar. Dole ne a canza 2000 ml na plasma yayin yin aikin ALSS. Za'a iya samun cikakkun hanyoyin aiwatar da aiki a cikin Yarjejeniyar Kwararru akan Aiwatar da Tsarkake Tsarin Jiki na Tsarin wucin gadi a cikin Jiyaya na Ciwon Mara da Cutar Cikakken Tsarin cutar Coronavirus.

ALSS ya rage lokacin da marasa lafiyar ke fama da zama a cikin ICU a asibitin mu. Yawanci, matakan cytokines na serum irin su IL-2 / IL-4 / IL-6 / TNF α suna raguwa sosai, kuma yawan inganta jijiyar oxygen yana karuwa sosai bayan ALSS

3 Magungunan Oxygen don Hypoxemia

Hypoxemia na iya gabatarwa saboda raunin ayyukan numfashi ta COVID-19. Oxygen kari magani na iya gyara hypoxemia, yana rage lalacewar sashin jiki wanda ya haifar da damuwa na numfashi da hypoxemia.

3.1 Oxygen far

- (1) Ci gaba da lura da jijiyar oxygen yayin aikin oxygen

Wasu marasa lafiya ba dole ba ne su sami rauni na ayyukan oxygenation a farkon kamuwa da cuta amma suna iya bayyana saurin farkewar yanayin oxygen a cikin lokaci. Sabili da haka, ana ba da shawarar ci gaba da lura da jijiyar oxygen, kafin da lokacin maganin oxygen.

(2) Oxygen far da wuri-wuri

Magungunan Oxygen ba lallai ba ne ga marasa lafiya da ke dauke da sinadarin oxygen (SpO2) na sama da kashi 93% ko ga marasa lafiya ba tare da alamun alamun bacin rai ba tare da maganin oxygen ba. Oxygen far ana bada shawara sosai ga marasa lafiya da alamun alamun damuwa na numfashi. Ya kamata a lura cewa wasu marasa lafiya masu rauni tare da PaO2 / FIO2 <300 basu da alamun bayyanar cututtuka na damuwa na numfashi.

(3) Manufar jiyaya na maganin maganin oxygen

Makasudin lura da maganin oxygen shine don kula da jijiyar oxygen (SpO2) a 93% -96% ga marasa lafiya ba tare da cututtukan huhun hanji ba kuma a 88% -92% ga marasa lafiya da ke fama da rashin bacci irin na II. Musamman, ya kamata a kara yawan habakar oxygen zuwa 92% -95% ga marasa lafiya wadanda SpO2 suka fadi kasa da 85% akai-akai yayin ayyukan yau da kullun.

(4) Gudanar da maganin oxygen

PaO₂ / FiO₂ alama ce mai ma'ana da daidaitaccen alama na aikin oxygenation. Kwanciyar hankali da kulawa da FiO₂ suna da matukar mahimmanci ga marasa lafiya da ke ci gaba da cutar da PaO₂ / FiO₂ a kasa 300 mmHg. Ana sarrafa maganin oxygen shine mafi kyawun magani.

Babban shawarar hanci innula (HFNC) ana ba da shawarar iskar oxygen ga marasa lafiya da ke da yanayin masu zuwa: SpO₂ <93%; PaO₂ / FiO₂ <300 mmHg (1 mmHg = 0.133 kPa); Yawan numfashi > Sau 25 a minti a gado; ko ci gaba mai ban mamaki a hoton hoto. Marasa lafiya yakamata su sa abin rufe fuska yayin aikin HFNC. Ya kamata iska mai karfi ta iska HFNC ta fara aiki a karamin matakin sannu a hankali kuma ta karu har zuwa 40-60 L / min lokacin da PaO₂ / FiO₂ ya kasance tsakanin 200-300 mmHg domin marasa lafiya basu ji kyamar kirji da gajerar numfashi ba. Ya kamata a bayar da kwararar farko na aƙalla 60 L / min don kai tsaye ga marasa lafiya da ke da matsala na numfashi.

Rashin kwayar cuta na Tracheal ga marasa lafiya ya dogara da ci gaba da cutar, matsayin tsari da rikicewar marasa lafiya ga waƙanda ke da yanayin kwanciyar hankali amma tare da karancin oxygenation (<100 mmHg). Don haka, cikakken kimantawa na yanayin asibiti na marasa lafiya yana da mahimmanci sosai kafin yanke shawara. Ya kamata a yi aikin tracheal a farkon lokacin da zai yiwu ga marasa lafiya da ke dauke da siginar oxygenation kasa da 150 mmHg, alamun rashin karfi na tashin hankali ko raunin kwayar jiki da yawa a cikin sa'o'i 1-2 bayan hauhawar karfi (60 L / min) da kuma mai da hankali (> 60%) HFNC maganin oxygen. Tsafafi marasa lafiya (> 60 shekara) tare da karin rikice-rikice ko PaO₂ / FiO₂ kasa da 200 mmHg ya kamata a bi da su a cikin ICU

3.2 Samun iska

(1) Tsarin iska mara iska (NIV)

Ba a ba da shawarar NIV sosai a cikin marasa lafiya na COVID-19 waƙanda suka gaza maganin HFNC. Wasu marasa lafiya masu rauni suna ci gaba zuwa ARDS cikin sauri. Matsanancin hauhawar hauhawar farashin kayayyaki na iya haifar da rikicewar ciki da rashin hakuri wanda ke ba da gudummawa ga muradi da cutar rauni ta huhu. Amfani da ɗan gajeren lokaci (kasa da awanni 2) na NIV za'a iya saka idanu sosai idan mai hakuri yana da rauni na hagu na hagu, kwaƙwalwar kwayar cuta mara nauyi ko kuma rigakafi. Ya kamata a yi zurfin ciki da wuri-wuri idan an lura da ci gaban bayyanar cututtuka na numfashi ko PaO₂ / FiO₂.

Ana ba da shawarar NIV tare da kewaye kewaye. Ya kamata a shigar da matattarar kwayar cuta tsakanin abin rufe fuska da bawul ɗin kwashewa lokacin amfani da NIV tare da bututu guda ɗaya. Ya kamata a zaɓi masks masu dacewa don rage haɗarin kwayar cuta ta hanyar yaduwar iska.

(2) Inventive Injin Jirgin Sama na Jirgin Sama

① Ka'idojin tsarin iska mai kauri a cikin marasa lafiya marasa lafiya

Yana da mahimmanci don daidaita yawan bukatar iska da oxygenation da haɗarin raunin huhun iska wanda yake da alaƙa da jijjoyin COVID-19.

* Ly Dogara mai tsananin karfi zuwa 4 - 8 mL / kg. Gabaɗaya, kanaanan haɓakar huhun, karamin saiti na yau da kullun ya kamata.

* Kula da matsin masalain <30 cmH₂O (1 cmH₂O = 0.098 kPa) da matsin tuƙi <15 cmH₂O.

* Saita PEEP bisa ga ka'idojin ARDS.

* Mitar iska: sau 18-25 a minti ɗaya. An yarda da matsakaici hypercapnia.

* Gudanar da kwantar da hankula, dubura, ko shakatawar tsoka idan karar na yau da kullun, matsin lamba da matsanancin tuƙi sun yi yawa

② Ruit Saukar Lung

Saukar Lung yana inganta rarrabuwar rarrabuwa a cikin marasa lafiya tare da ARDS. Koyaya, yana iya haifar da matsanancin karfi na numfashi da kuma wurare dabam dabam sabili da haka, ba a bada shawarar aikin motsa huhu ba akai-akai. Yi kimantawa game da kumburin huhu ya kamata ayi aikin kafin aikace-aikacen

(3) Matsakaicin Matsayi Mai Wuya

Mafi yawan marasa lafiya marasa lafiya tare da COVID-19 suna amsawa da kyau don samun iska mai sauƙi, tare da saurin haɓakar oxygenation da injin makoki. Ana ba da shawarar samun iska mai mahimmanci azaman dabarun yau da kullun ga marasa lafiya tare da $PaO_2 / FiO_2 < 150$ mmHg ko tare da alamun bayyananniyar hoto ba tare da contraindications ba. Lokaci da aka ba da shawarar don samun iska mai karfi sama da sa'o'i 16 kowane lokaci. Za a iya dakatar da iska mai sauƙin sau ɗaya PaO_2 / FiO_2 ya fi 150 mmHg sama da awanni 4 a cikin supine.

Zai yiwu a sami iska mai karfi yayin farkawa don marasa lafiya waɗanda basu da nutsuwa ko basu da wata matsala ta numfashi amma tare da karancin oxygenation ko kuma suna da karfi a cikin huhun da suke dogara da huhun huhun hotunan huhun. Ana ba da shawarar hanyoyin aiwatar da akalla awanni 4 kowane lokaci. Ana iya la'akari da matsayin da ya fi dacewa sau da yawa a kowace rana dangane da halaye da hakuri.

(4) Yin rigakafin Regurgitation da buri

Ya kamata ayi saura na ciki da aikin gastrointestinal akai-akai. An bada shawarar samar da abinci mai gina jiki mai dacewa don ciyarwa kamar yadda yakamata. Ana ba da shawarar ciyar da Nasointestinal da ci gaba da lalata lalata nasogastric. Yakamata a dakatar da abinci mai koshin abinci da kuma muradin da ke tare da sirinji 50 ML kafin canja wuri. Idan babu contraindication, ana ba da shawarar matsayin 30 ° Semi-zaune.

(5) Gudanar da Ruwa

Excessive fluid burden worsens hypoxemia in COVID-19 patients. To reduce pulmonary exudation and improve oxygenation, the amount of fluid should be strictly controlled while ensuring the patient's perfusion. Burdenancin ruwa mai saurin zubar da jini yana cutar da hypoxemia a cikin marasa lafiyar COVID-19. Don rage exudation na huhu da haɓaka oxygenation, yawan kwayar ya kamata a sarrafa shi sosai yayin tabbatar da kanshin hakuri.

(6) Dabarun da zasu Kawo Vormlator-hade da ciwon huhu VAP

Dole ne a aiwatar da hanyoyin dabarun Vap:

- ① Zabi nau'in bututun bakin ciki da suka dace;
- ② Yi amfani da bututu mai narkewa tare da tsotsewar kwayar cuta (sau ɗaya a cikin kowane 2 sa'o'i, ana so a sami madaidaicin m mil 20 kowane lokaci);
- ③ Sanya bututun bakin ciki a inda ya dace da zurfin daidai, gyara yadda ya kamata kuma ka guji ja.

- ④ Kula da matattarar airbag a 30 - 35 cmH₂O (1 cmH₂O = 0.098 kPa) kuma saka idanu kowane 4 hours
- ⑤ Kula da matsi na airbag kuma magance hulɗa na ruwa lokacin da yanayin ya canza (mutane biyu suna aiki tare da jujjuyawar da zuba ruwan a cikin kwandon wando wanda ya kunshi maganin barayin da aka riga aka yi da sinadarin chlorine); magance asirin da aka tara cikin jakar iska
- ⑥ Tsaftace boye abubuwa daga bakin da hanci a kan kari.

(7) Wean na Ventilation

Sedatives yana raguwa kuma ya daina aiki kafin farkawa lokacin da PaO₂ / FiO₂ na hakuri ya fi 150 mmHg. Yakamata ya daina yin aikin kamar yadda yakamata idan aka samu dama. Ana amfani da HFNC ko NIV don tallafin mai numfashi bayan cirewa.



VIII. Amfani da Magani na rigakafi don hana kamuwa da cuta

COVID-19 cuta ce ta kamuwa da kwayar cuta, sabili da haka ba a ba da shawarar rigakafin cutar kwayar cutar kwayar cuta ba a cikin marasa laushi ko marasa lafiya; ya kamata a yi amfani dashi a hankali a cikin majinayata masu rauni dangane da yanayin su. Za'a iya amfani da maganin rigakafi tare da hankali a cikin marasa lafiya waɗanda ke da halaye masu zuwa: m raunuka huhu; yawan wuce haddi na danshi; cututtukan airway na yau da kullun tare da tarihin cutarwar pathogen a cikin Kananan kwayar jijiyoyin jiki; shan glucocorticoids tare da sashi $\geq 20 \text{ mg} \times 7 \text{d}$ (cikin sharuɗɗan prednisone).Zabubbukan maganin rigakafi.

sun hada da quinolones, cephalothins na biyu ko na uku, β -lactamase inhibitor mahadi, da sauransu. Ya kamata a yi amfani da maganin rigakafin don rigakafin kamuwa da kwayar cuta a cikin marasa lafiya masu tsananin rauni, musamman ma wadanda ke dauke da iska iska. Magungunan rigakafin kwayoyin cuta kamar su carbapenems, β -lactamase inhibitor mahadi, linezolid da vancomycin za'a iya amfani dasu a cikin marasa lafiya marasa lafiya gwargwadon abubuwan hadari na mutum

Alamar mai hakuri, alamu da alamomi kamar su na yau da kullun na jini, furotin na C-reactive, da procalcitonin, suna buƙatar kulawa sosai a lokacin jiyya. Lokacin da aka gano canjin yanayin mara lafiyar, ana buƙatar cikakken hukunci na asibiti. Lokacin da ba za a iya kawar da kamuwa da cuta na biyu ba, kwararrun samfuran suna buƙatar tattara don gwaji ta hanyar smear, namo, nucleic acid, antigen da antibody, don kayyade mai kamuwa da cuta da wuri-wuri. Za'a iya amfani da maganin rigakafi ta hankali a cikin yanayi masu zuwa: ① karin bege, launi mai duhu, musamman futowar rawaya; Yunkurin zafin jiki wanda ba saboda fashewar cutar asali ba; ③ alamar cutar farin jini da / ko kuma kebabbu; ④ procalcitonin ≥ 0.5 ng / mL; ⑤ Nunin fitar da iska mai narkewar iska ko tashin hankali wanda ba ya haifar da kamuwa da cuta ko bidiyo mai zagaya yanar gizo; da sauran yanayin shakku sakamakon kamuwa da kwayoyin cuta

Wasu marasa lafiya na COVID-19 suna cikin hadarin cututtukan fungal na sakandare saboda rauni na rigakafin kwayoyin cuta wanda ke haifar da cututtukan kwayoyin cuta, yin amfani da glucocorticoid da / ko rigakafin kwayar cuta. Wajibi ne a yi abubuwan bincike na huhu kamar shirye-shiryen sassar da kuma namo marasa lafiya masu tsananin rauni; da kuma samar da D-Glucose na lokaci (G-gwaji) da galactomannan (GM-test) na jini ko na ruwa mai daskarewa na zuciya ga wadanda ake zargi

Wajibi ne a yi taka tsantsan tare da yiwuwar kamuwa da cutar kamuwa da cutar siga da cututtukan fungal. Ana iya amfani da Fluconazole ko echinocandin a cikin yanayi masu zuwa: An ba wa marasa lafiya magungunan rigakafi na kwana bakwai ko fiye; Marasa lafiya suna da abinci mai gina jiki; Marassa lafiya suna yin gwaji ko magani; Marasa lafiya suna da kyawawan al'adun candida a cikin samfuran da aka samo daga sassan jikin mutum biyu ko fiye; Marasa lafiya suna da haɓaka sakamakon G-gwajin

Wajibi ne a yi taka tsantsan tare da yiwuwar kamuwa da cututtukan huhun ciki. Ana amfani da maganin rigakafin cututtukan fungal kamar voriconazole, posaconazole, ko echinocandin a cikin waɗannan yanayi: are Ana ba wa marasa lafiya glucocorticoid har kwana bakwai ko fiye; Marasa lafiya suna da agranulocytosis; Marasa lafiya suna da cuta mai saurin kamuwa da cuta kuma al'adar aspergillus ana gwada inganci a cikin samfuran da aka samo daga hanyar jirgin sama; Marasa lafiya sun karu da sakamakon GM-gwaji

IX. Daidaitawar Tsarin Maganin Tsirrai da Tallafin Abinci

Wasu marasa lafiya na COVID-19 suna da alamomin gastrointestinal (kamar ciwon ciki da gudawa) sakamakon kamuwa da cuta ta hanji kai tsaye ta hanjin mucosa ko antiviral da magungunan rigakafi. An bayar da rahoto cewa daidaituwar kwayar cuta ta hanji ta karye a cikin marasa lafiyar COVID-19, yana nuna raguwa mai mahimmanci na kwayoyin hanji kamar lactobacillus da bifidobacterium. Rashin daidaituwar kwayoyin cuta na ciki na haifar da haifar da canjin kwayar cuta da cutar ta sakandare, don haka yana da mahimmanci don kula da daidaituwar kwayoyin cuta ta intanet-nal ta masu amfani da kwakwalwar kwakwalwa da tallafin abinci mai gina jiki.

1 Tsoma Tsakanin Microecologics

(1) Microecologics na iya rage canjin kwayar cuta da kamuwa da cuta na sakandare. Yana iya haɓaka kwayoyin cuta ta gut, yana hana kwayoyin cuta na hanji, rage haɓakar guba da rage kamuwa da cuta ta hanyar gut microflora dysbiosis.

(2) Microecologics zai iya inganta alamun gastrointestinal na marasa lafiya. Zai iya rage ruwa a feces, inganta halayyar fecal da kuma yawan buguwa, da rage gudawa ta hanyar hana atrophy na hanji.

(3) Asibitin tare da abubuwan da suka dace na iya yin aikin binciken fitsarin cikin gida. Sabili da haka, ana iya gano tashin hankali na hanji da wuri sakamakon sakamakon. Ana iya daidaita rigakafin anti-otics a kan kari kuma ana iya tsara magunguna. Wadannan na iya rage saurin kamuwa da kwayar hanji ta hanji da kuma kamuwa da cuta ta hanji.

(4) Goyan bayan abinci mai gina jiki muhimmiyar hanya ce ta kula da ma'aunin kwayoyin cuta na ciki. Ya kamata a yi amfani da tallafin abinci mai gina jiki a kan lokaci gwar gwadon tushen kimar hadari na abinci mai gina jiki, ayyukan gastroenteric, da hadarin hadari.

2 Tallafin Abinci

Marasa lafiya da rashin lafiya mai fama da cutar COVID-19 waɗanda ke cikin matsananciyar wahala suna cikin haɗarin abinci mai gina jiki. Binciken farko game da haɗarin abinci mai gina jiki, ayyukan gastrointestinal da haɗarin fata, da tallafin abinci mai gina jiki na lokaci mai mahimmanci ga tsinkayen mai haƙuri.

(1) An fi son ciyar da baki. Abincin na hanji na farko na iya samar da tallafin abinci mai gina jiki, ciyar da hanji, inganta shinge na mucoal na hanji da kuma kariya ta hanji, da kuma kula da cutar kwakwalwa na hanji.

(2) Hanyar abinci mai inganci. Marasa lafiya da rashin lafiya marasa lafiya galibi suna fama da larura na ciki, wanda aka bayyana azaman rikicewar ciki, zawo, da gastroparesis. Ga marasa lafiya waɗanda ke cikin tracheal intubation, bututun abinci mai ciki na hanji yana bada shawarar don ciyar da bayan-pyloric.

(3) Zabin maganin abinci mai gina jiki. Ga marasa lafiya da lalacewar hanji, ana ba da shawarar gajerun peptide shirye-shiryen, waɗanda suke da sauki don faukar ciki da amfani. Ga marasa lafiya da kyawawan ayyuka na hanji, ana iya zaɓar shirye-shiryen furotin gaba daya tare da adadin kuzari sosai. Don marasa lafiya na hyperglycemia, ana ba da shawarar shirye-shiryen abinci mai gina jiki waɗanda ke da amfani ga sarrafa glycemiac.

(4) Tsarin makamashi. 25-30 kcal a kowane nauyin kilogram na jiki, abun da ke gina jiki mai mahimmanci shine 1.2-2.0 g / kg kowace rana.

(5) Hanyar samar da abinci mai gina jiki. Za'a iya amfani da hawan abinci mai gina jiki a cikin saurin daidaituwa, farawa da karancin magani kuma sannu a hankali yana karuwa. Idan za ta yiwi, za a iya mai da sinadaran a cikin abinci kafin a ciyar don rage haƙuri.

(6) Tsofaffi marasa lafiya waɗanda ke da tsananin haɗarin ko marasa lafiya da keɓaɓɓen damuwa na ciki za su iya tallafawa ta hanyar abinci na parenteral na dan lokaci. Zai iya zama sannu-sannu a maye gurbin shi ta hanyar abinci mai zaman kansa ko abinci mai karancin gaske bayan yanayin su ya inganta.

X. Tallafin ECMO don Marasa lafiya na COVID-19

COVID-19 sabon labari ne, cuta ce mai saurin kamuwa da cuta da farko tana nufin cutar sankara, wanda hakan ke lalata karancin huhun marasa lafiyar da ke haifar da gazawar numfashi. Don aikace-aikacen oxygen membrane oxygenation (ECMO) a cikin COVID -19 magani, kwararrun likitoci suna buƙatar kulawa da hankali ga masu zuwa: lokacin da hanyoyin shiga, maganin rashin karfi da zub da jini, daidaituwa tare da samun injin, farkawa ECMO da farkon horo na farfadowa, dabarun magancewa don rikitarwa.

1 Lokaci Tsaran Cire ECMO

1.1 Ceto ECMO

A cikin yanayin tallafawa iska na kera, ana daukar matakan kamar dabarun kare iska na huhu da samun iska mai saurin yanayi har tsawon awa 72. Tare da farawa daga ɗayan halaye masu zuwa, ana buƙatar kwantar da hankulan shigar ECMO

- (1) $PaO_2 / FIO_2 < 80$ mmHg (ba tare da la'akari da menene matakin PEEP ba);
- (2) $Pplat \leq 30$ mmHg, $PaCO_2 > 55$ mmHg;
- (3) Farkon pneumothorax, fitar iska a iska $> 1/3$ yawan kwaliya, tsawon > 48 h;
- (4) Rushewar mahaifa, sashi na norepinephrine $> 1 \mu g / (kg \times min)$
- (5) Sake farfadowar zuciya na zuciya a cikin rayuwar vitro.

1.2 Canza ECMO

Lokacin da mai hakuri bai dace da goyon bayan iska na dogon lokaci ba, misali, mara lafiya ba zai iya samun sakamakon da ake tsammanin ba, ECMO mai sauyawa yana buƙatar yin tallafi nan da nan. Tare da farawa daga ɗayan yanayi mai zuwa, ana buƙatar la'akari da sauyawa ECMO

- (1) Yarda da yarda da huhu. Bayan jijiyoyin bugun kwayar kwayar mara mara kwaƙwalwa, tarawar-ance na tsarin numfashi < 10 mL / cmH₂O;
- (2) Ciwon danshi mai daskarewa na pneumomediastinum ko ragewar zuciya. Kuma ba za a iya rage sigogi na tallafin iska na inji a cikin 48 h ba, bisa ga kimantawa;
- (3) $PaO_2 / FIO_2 < 100$ mmHg. And it cannot be improved by routine methods in 72 h.

1.3 Farkon tashin ECMO

Ana iya amfani da ECMO na farkawa da wuri ga marasa lafiya waɗanda ke da goyan baya ta hanyar motsawa ta injina tare da sigogi masu tsayi da ake tsammanin fiye da kwanaki 7 waɗanda suka cika yanayin zama na ECMO na farkawa. Za su iya amfana daga gare ta. Dukkanin halaye masu zuwa dole ne a cika su

- (1) Mai hakuri yana cikin yanayin bayyananne kuma yana da cikakkiyar yarda. Shi ko ita ta fahimci yadda ECMO ke aiki da buƙatun ta na kiyayewa;
- (2) Mai hakuri ba shi da rikitarwa tare da cututtukan cututtukan kwaƙwalwa;
- (3) Matsalar lalata na kwayar Murchi > 2.5 ;
- (4) seccarancin huhun asirin. Tsakanin lokaci tsakanin hanyoyin wucewa ta iska biyu > 4 h;
- (5) Barkewar yanayin motsa jiki. Ba a buƙatar wakilan Vasoactive don taimako ba.

2 Hanyoyin Cutar

Saboda lokacin tallafawa ECMO ga mafi yawan marasa lafiya na COVID-19 sun fi kwana 7 girma, ya kamata a yi amfani da hanyar seldinger gwargwadon damar don shigar da kayan hadin catheter na duban dan tayi, wanda ke rage lalata zubar jini da hadarin kamuwa da cuta wanda ya haifar ta hanyar kwayoyin cuta ta hanyar jiyya ta hanyar venous. maganin ciwon kai, musamman ga farkon mara lafiyar ECMO. Za'a iya la'akari da catheterization na intravascular by venous angiostomy kawai ga marasa lafiya waɗanda ke da mummunan yanayin tasoshin jini, ko kuma marasa lafiya waɗanda ba za a iya tantance su kuma zabaɓɓu ta hanyar duban dan tayi ba, ko kuma marasa lafiyar waɗanda fasahar seldinger ta gaza

3 Yanayin Yanayin

(1) Zabi na farko ga marasa lafiya na nakasawar numfashi shine yanayin V-V. Yanayin V-A kada ta kasance farkon zabi kawai saboda matsalolin yiwuwar wurare dabam dabam.

(2) Ga marasa lafiya gazawar numfashi masu rikitarwa tare da rauni na zuciya, $PaO_2 / FiO_2 < 100$ mmHg, ya kamata a zabi yanayin V-A-V tare da jimlar kawancen $> 6 L / min$ kuma $V / A = 0.5 / 0.5$ an kiyaye shi ta hanyar iyakance na yanzu.

(3) Ga marasa lafiya na COVID-19 ba tare da gazawar numfashi ba amma rikitarwa tare da mummunan sakamako na zuciya da ke haifar da girgiza zuciya, V-A wanda ke taimaka wa yanayin ECMO ya kamata a zabi. Amma ana buƙatar tallafin IPPV kuma dole ne a guji farkawar ECMO. Yana kamata a guji farkawar ECMO.

4 Mahimmanci Saita-ruwa da Ingancin Oxygen Obingen

(1) Farkon ruwa $>$ fitowar kashi 80% na bugun jini (CO) tare da rakiyar keɓaɓɓiyar keke $< 30\%$.

(2) $SPO_2 > 90\%$ dole ne a kiyaye. $FiO_2 < 0.5$ yana tallafawa ta hanyar iska ko injinan oxygen.

(3) Don tabbatar da kwararar kwayar manufa, 22 Fr (24 Fr) hanyar samun damar canula ita ce zabi na farko ga mai haƙuri tare da nauyin jiki a kasa (sama) 80 kg.

Saitin Samun iska

5 Kulawa ta iska ta al'ada ta hanyar daidaita matakan gas:

(1) Tsarin iska na farko zai zama Flow: gumi mai = 1: 1. Babbar manufar ita ce kiyaye $PaCO_2 < 45$ mmHg. Ga marasa lafiya masu rikitarwa tare da COPD, $PaCO_2 < 80\%$ matakin basal.

(2) shouldarfin numfashi mara lafiyan da raunin numfashi (RR) yakamata a kiyaye, tare da 10 $< RR < 20$ kuma ba tare da babban koshin kula da numfashi ba daga mai haƙuri.

(3) Tsarin gas mai tsafta na yanayin V-A yana buƙatar tabbatar da darajar 7.35-7.45 PH na kwayar jini daga cikin kwayar oxygenator.

6 Magungunan Anti-Coagulation da Barin jini

(1) Ga marasa lafiya ba tare da zubar jini ba, ba tare da zubar jinni ba, kuma tare da kididdigar platelet $> 50 \times 10^9 / L$, shawarar farko na heparin shine 50 U / kg.

(2) Ga marasa lafiya masu rikitarwa da zub da jini ko tare da kididdigar platelet $< 50 \times 10^9 / L$, shawarar farko na heparin shine 25 U / kg.

(3) Lokaci mai aiki wanda aka kunna aromotplastin (aPPT) kasancewa 40-60 sec an gabatar dashi shine asasin maganin hana daukar ciki. Ya kamata a yi la'akari da yanayin canjin D-dimer a lokaci guda.

(4) Za'a iya aiwatar da aikin heparin-kyauta a cikin yanayi masu zuwa: dole ne a sami tallafin ECMO amma akwai zubar jini ko jini mai wahala wanda dole ne a sarrafa shi; duka heparin mai rufi madauki da catheterization tare da kwararawar jini > 3 L / min. Lokaci bada shawarar <24 awa. Ana bukatar shirya kayan maye gurbin da abubuwan amfani.

(5) Jurewar Heparin. A karkashin wasu yanayi na amfani da heparin, aPTT baya iya isa ga daidaituwa kuma coagulation na jini ya faru. A wannan yanayin, ana bukatar kulawa da ayyukan plasma antithrombin III (ATIII). Idan aikin ya rage, ana bukatar karin plasma mai sanyi mai sanyi don dawo da hankalin heparin.

(6) Heparin jawo thrombopenia (HIT). Lokacin da HIT ta faru, muna bada shawara don yin maganin musayar plasma, ko kuma maye gurbin heparin tare da argatroban.

7 Yatsa daga ECMO da injin sarrafa Injiniya

(1) Idan mara lafiyar da VV ECMO ke bi da shi tare da kwandon injiniya ya gamsar da yanayin ECMO, muna ba da shawarar fara koƙarin cire hanyar wucin gadi, sai dai idan mai hakuri yana da rikice-rikicen ECMO, ko lokacin da ake tsammanin cire duk injunan da ke taimaka wa. kasa da 48 a lokacin.

(2) Ga mai hakuri wanda ke da matsanancin rufin titi da yawa wanda ake bukatar tsaftacewa ta wucin gadi, wanda ake tsammanin zai sami goyon bayan iska na dogon lokaci, wanda ya gamsar da yanayin $PaO_2 / FiO_2 > 150$ mmHg da lokaci > 48 h, wanda Canjin hoton huhun da ya fi kyau, kuma wanda aka kula da lamuran sa na matsin lamba na iska, ana iya cire taimakon ECMO. Ba a sake gyara shi ba don sanya rigar ECMO.





XI. Vawararren kwayar cutar plavama na convalescent don marasa lafiya na COVID-19

Tunda Behring da Kitasato sun ba da rahoton cututtukan cututtukan cututtukan cututtukan kwayar cutar plasma a cikin 1891, kwayar cutar ta plasma ta zama muhimmiyar hanyar rigakafin cututtukan cututtukan cututtukan cututtukan fata. Cutar tayi saurin zama mai rauni ga marassa lafiya da masu fama da rashin lafiya na kamuwa da cutar. A farkon lokaci, kwayoyin cuta suna lalata gabobin da aka yi niyya kai tsaye sannan kuma su kai ga lalacewar immuno-pathological. Kwayoyin rigakafi marasa kariya na iya shawo kan cutar ta kai tsaye kuma kai tsaye suna kawar da cututtukan, wanda ke rage lalacewar gabobin da ke ciki sannan kuma ke toshe lahanin da ke tattare da rigakafi.

A yayin barkewar annobar cutar ta duniya da yawa, WHO ta kuma jaddada cewa "convalescent plasma rapy shine dayan shawarar da aka bayar da shawarar ta, kuma anyi amfani dashi yayin sauran annobar annobar". Tun bayan barkewar COVID-19, yawan mutuwar mutane ya yi yawa saboda rashin takamaiman magani da lafiya. Kamar yadda yawan mace-mace muhimmiyar awo ce da ke damun jama'a, kulawa da asibiti wanda zai iya rage yawan mace-mace a lokuta masu muhimmanci kai tsaye sune mahimanci don gujewa fargaba a cikin jama'a. A matsayin mu na asibiti na lardin Zhejiang, mun dauki nauyin kula da marassa lafiya daga lardin Hangzhou da kuma marassa lafiyar lardin. Akwai yawan masu ba da gudummawar cutar plasma na plasma da marasa lafiya marasa lafiya waɗanda ke buƙatar maganin cutar plasma na asibiti a asibiti.

1 tarin Plasma

Baya ga buƙatun gama gari na gudummawar jini da hanyoyin, ya kamata a lura da cikakkun bayanai masu zuwa.

1.1 Masu ba da gudummawa

Akalla makonni biyu bayan murmurewa da fitar da shi (gwajin kwayar acid na samfuran da aka dauka daga Kananan Kwayar jijiyoyin jiki ya ragu kwana 14). $18 \leq$ Shekaru ≤ 55 . Yawan jikin > 50 kg (na namiji) ko > 45 kg (na mace). Akalla mako guda tun amfani da glucocorticoid na karshe. Fiye da makonni biyu tun bayar da gudummawar jini na karshe.

1.2 Hanyar tattarawa

Plasmapheresis, 200–400 mL kowane lokaci (dangane da shawarar likita).

1.3 Gwajin Bayanin Gida

Baya ga gwajin ingancin gaba daya da kuma gwajin cututtukan da ke dauke da jini, ana bukatar ayi gwajin samfuran jini:

- (1) Gwajin nukiliya na acid na SARS-CoV-2;
- (2) 160-dilution game da gwajin ingancin SARS-CoV-2 takamaiman IgG da gano IgM; ko sau biyu 320 na dilution don cancantar gwajin ingancin duk abubuwan da ake amfani da su. Idan za ta yiwu, ka riƙe plasma 3 mL na gwajin kwayar cuta ta kwayar cuta.

Ya kamata a lura da mai zuwa. Yayin nazarin kwayar rigakafi na kwayar cuta da ganowa mai kididdige IgG antifree kididdigar kwaƙwalwar kwayar cuta, mun gano cewa ganowar SARS-CoV-2 takamaiman IgG antibody ba ya nuna ainihin ikon kwayar cutar kwayar cutar. Sabili da haka, mun ba da shawarar gwajin kwayar kwayar kwayar cuta a matsayin zaƙi na farko, ko gwada kimar rigakafin gaba daya tare da dillancin 320 na kwayoyin jini.

2 Amfani da Clinical na jinni

2.1 Nuna

- (1) Marasa lafiya ko rashin lafiya mai rashin lafiya COVID-19 marasa lafiya sun gwada inganci a cikin gwajin bugun jini;
- (2) Marasa lafiyar COVID-19 waƙanda ba su da lafiya ko rashin karfi, amma a cikin yanayin hana garkuwar jiki; ko samun kimar CT mara kima a cikin gwajin kwayar kwayar kwayar kwayar cuta amma tare da saurin ci gaba da cuta a cikin huhu

Lura: A ka'ida, ba za a yi amfani da plavama convalescent ba akan marasa lafiyar COVID-19 waƙanda ke da cutar cutar da suka wuce sati uku. Amma a cikin aikace-aikacen asibiti, mun gano cewa maganin cutar plasma na plasma yana da ma'ana ga marasa lafiya da ke fama da cutar da ta wuce makwanni uku wanda kuma gwajin kwayoyin acid na ci gaba ya nuna tabbatacce daga samfuran samfuran numfashi. Yana iya hanzarta kawar da kwayar cutar, da kara lambobin plasma lymphocytes da sel NK, rage matakin plasma lactic acid, da kuma inganta ayyukan renal

2.2 Contraindication

- (1) Tarihin kwayar cuta na plasma, sodium citrate da methylene blue;
- (2) Ga marasa lafiya da tarihin cututtukan cututtukan cututtukan cututtukan cututtukan cututtukan kwayoyin cuta ko rashin IgA, aikace-aikace na plavama convalescent ya kamata a kimanta shi da hankali ta hanyar likitocin.

2.3 Tsarin jiko Gabaɗaya, sashi na maganin plasma na convalescent shine ≥ 400 mL don jiko daya, ko ≥ 200 ml akan jiko don infusions da yawa.

XII. TCM rarrabuwa ta TCM don Inganta Cutar Cutar ta Cutar

1 Rarrabuwa

Za'a iya raba COVID-19 zuwa farkon, tsakiya, mahimmanci da kuma dawo da aiki. A farkon

mataki, cutar tana da manyan nau'ikan guda biyu: "huhun huhu" da "sanyi na waje da zafi na ciki." Tsarin tsakiya shine halin "sanyi mai zafi da zafi". Halin mai mahimmanci yana da ma'anar "toshewar kwayar cuta ta ciki." Ana nuna matakin murmurewa ta hanyar "karancin rashi a cikin huhun huhun ciki." Cutar da farko daga cikin cututtukan huhun huhun. Sakamakon zazzabi, duka sanyi da na lokacin sanyi ana sabunta su. A tsakiyar mataki, sanyi, damp, da haɗin kai mai zafi, kasancewar "cakuda-mai-sanyi" cikin yanayin TCM. Duk cututtukan sanyi da zafi ya kamata a ba su ma'amala. Dangane da ka'idar TCM, yakamata a magance zafi da magungunan sanyi. Amma kwayoyi masu sanyi suna lalata Yang kuma suna haifar da gawan sanyi da ciki da kuma ruwan sanyi a tsakiyar-Jiao. Saboda haka, a cikin wannan matakan duka hanyoyin magance sanyi da zafi yakamata su kasance a bayyane. Saboda bayyanar cututtukan sanyi-yawancin lokaci ana ganin su a cikin marasa lafiyar COVID-19, wutan sanyi-sanyi yafi kyau fiye da sauran hanyoyin.

2 Farfadowa da Tsarata

(1) Huhu huhun Ephedra Herb 6 g, Semen Armeniacae Amarumg 10 g, Coix Seed 30 g, Liquoric Tushen 6 g, Baical Skullcap Tushen 15 g, Huoxiang 10 g, Reed Rhizome 30 g, Cyrtomi-um Rhizome 15 g, Indian Buead 20 g, Sinnan din Rhizome 12 g, O ffi cinal Magnolia Bark 12 g.

(2) Zafin sanyi na waje da na ciki

Herba Ephedrae 9 g, Raw Gypsum Fibrosum 30 g, Semen Armeniacae Amarumg 10 g, Liquoric Tushen 6 g, Baical Skullcap Tushen 15 g, Pericarpium Trichosanthis 20 g, Fructus Aurantii 15 g, O ffi cinal Magnolia Bark 12 g, Triptero udomumum, g Mulberry Root-barkono 15 g, Pinellia Tuber 12 g, Indo na Indiya 20 g, Platycodon Tushen 9 g.

(3) M-sanyi mai-zafi

Pinellia Tuber 12 g, Baical Skullcap Root 15 g, Golden Thread 6 g, Dried Ginger 6 g, Chinese Date 15 g, Kudzuvine Root 30 g, Costustoot 10 g, Indian Buead 20 g, Thunberg Fritillary Bulb 15 g, Coix Seed 30 g, Liquoric Root 6 g.

(4) Rashin cutar huhu da saifa

Membranous Milkvetch Tushen 30 g, Pilose Asiabell Tushen 20 g, Roasted Largehead Atractylodes Rhizome 15 g, Indian Buead 20 g, Fructus Amomi 6 g, Siberian Solomon-hatim Rhizome 15 g, Pinellia Tuber 10 g, Tangerine Peel 6 g, Wingde Yan Rhizome 20 g, Semen Nelumbinis 15 g, Kwanan Sin 15 g.

Marasa lafiya a matakai daban-daban yakamata su yi kusan kowace hanya. Kashi daya a kowace rana. Tafasa magani a ruwa. Dauke shi kullun safe da maraice.

XIII. Gudanar da Amfani da Magunguna na Marasa COVID-19

COVID-19 marasa lafiya sau da yawa suna rikitarwa tare da cututtukan da ke haifar da karbar magunguna da yawa. Don haka, ya kamata mu mai da hankali sosai ga halayen muggan kwayoyi da kuma hulɗa da miyagun kwayoyi don guje wa lalacewar kwayoyin da ke cikin lalacewar kwakwalwar kwakwalwa da habaka kimar nasara na jiyya.

1 Bayyanar da halayen magunguna masu illa

An nuna cewa abin da ya faru na aikin hanta wanda ba shi da kyau shine 51.9% a cikin marasa lafiya na COVID-19 wadanda suka karbi lopinavir / ritonavir hade da maganin rigakafi na arbidol. Binciken da aka gudanar ya bayyana cewa wakilai na rigakafi da karin magunguna masu rikitarwa sune abubuwa biyu masu hadari masu hadari na aikin hanta na yau da kullum. Sabili da haka, kula da raunin da ya dace da miyagun kwayoyi yakamata a karfafa; yakamata a rage hada hadar magunguna. Manyan halayen masu illa ga kwayoyin cuta sun hada da:

Lopinavir / ritonavir da darunavir / cobicistat: zawo, tashin zuciya, amai, da haɓakar serum aminotransferase, jaundice, dyslipidemia, karuwar lactic acid. Kwayar cutar zata warke bayan an cire magunguna.

(1) Arbidol : karuwar serum aminotransferase da jaundice. Idan aka hada shi da lopinavir, raunin ya karu sosai. Alamar zata warke bayan an cire magunguna. Wani lokacin bugun zuciya zai iya jawowa; don haka ya zama dole don kauce wa haɗuwar arbidol tare da β – receptor inhibitors kamar metoprolol da propranolol. Muna ba da shawarar dakatar da shan magunguna lokacin da bugun zuciya ya fadi kasa da 60 / min.

(2) Fapilavir: haɓakar plasma uric acid, zawo, zazzabin cizon sauro, girgiza, hepatitis mai karfi, raunin koda. Abubuwan da ba su dace ba sun kasance ana ganin su a cikin tsofaffi marasa lafiya ko marasa lafiya da rikitarwa tare da guguwar cytokine.

(3) Chloroquine phosphate: tsananin zafi, ciwon kai, tashin zuciya, amai, gudawa, cututtukan fata da guda biyu. Mafi mummunan tashin hankalin shine kamewar zuciya. Babban mummunan sakamako shine cutar mayuka ta jiki. Ana buƙatar yin nazarin electrocardiogram kafin shan magungunan. Ya kamata a haramta amfani da miyagun kwayoyi don marasa lafiya tare da arrhythmia (misali, toshe hanyar), cututtukan fata, ko asarar ji.

2 Kula da Magungunan Kula da Magunguna

Wasu magungunan antiviral da antibacterial suna buƙatar kulawa da magungunan warkewa (TDM). Tebur 1 yana gabatar da yawan kwayoyin cutar irin waɗannan kwayoyi da daidaitawar sashi. Bayan fara rikicewar magungunan plasma maida hankali ne, ana buƙatar daidaita hanyoyin kulawa ta hanyar yin la'akari da alamun asibiti da kuma magunguna masu haɗuwa..

Table 1 Matsakaicin taro da maki don kulawa da magungunan TDM na kowa don marasa lafiya na COVID-19

Drug names	Time points of blood collection	The range of concentrations	Principles of dosage adjustment
lopinavir/ ritonavir	(peak) 30 min after drug administration (trough) 30 min before drug administration	lopinavir: (trough) > 1 µg/mL (peak) < 8.2 µg/mL	Correlated with drug efficacy and side effects.
imipenem	10 min before the drug administration	1~8 µg/mL	Interpretation and adjust the plasma drug concentration based on MIC of the pathogen testing
meropenem	10 min before the drug administration	1~16 µg/mL	
vancomycin	30 min before the drug administration	10~20 mg/L (15~20 mg/L for the severe MRSA infection)	The trough concentration correlates with the failure rate of anti-infective therapy and renal toxicity. When the concentration is overly high, reduction of drug frequency or single dose is required.
linezolid	30 min before the drug administration	2~7 µg/mL	The trough concentration correlates with myelosuppression adverse reactions. The blood routine test needs to be closely monitored.
voriconazol	30 min before the drug administration	1~5.5 µg/mL	The trough concentration correlates with the therapeutic efficacy and adverse reactions such as impaired liver function.

3 Kula da yiwuwar cudanya da miyagun kwayoyi

Magungunan rigakafi kamar su lopinavir / ritonavir suna metabolized ta hanyar CYP3A enzyme a cikin hanta. Lokacin da marasa lafiya ke karbar magunguna masu hadari, masu yiwuwar hulɗa da kwakwalwar kwayar cuta suna buƙatar bincika su sosai. Jadawalin 2 yana nuna ma'amala tsakanin magungunan rigakafi da magunguna gama gari don cututtukan da suke kamuwa.

Table 2 Yarda da juna tsakanin magungunan rigakafi da magunguna gama gari don zama

Drug names	Potential interactions	Contraindication in combined medication
lopinavir/ ritonavir	When combined with drugs associated with CYP3A metabolism (e.g., statins, immunosuppressors such as tacrolimus, voriconazole), the plasma concentration of the combined drug may increase; leading to 153%, 5.9 folds, 13 folds increase of the AUC of rivaroxaban, atrovastatin, midazolam, respectively. Pay attention to clinical symptoms and apply the TDM.	Combined use with amiodarone (fatal arrhythmia), quetiapine (severe coma), simvastatin (rhabdomyolysis) is prohibited.
darunavir/ cobicistat	When combined with drugs associated with CYP3A and/or CYP2D6 metabolism, the plasma concentration of the combined drugs may increase. See lopinavir/ ritonavir.	See lopinavir/ritonavir.
arbidol	It interacts with CYP3A4, UGT1A9 substrates, inhibitors, and inducers.	—
fapilavir	<ul style="list-style-type: none"> ① Theophyllinum increases the bioavailability of fapilavir. ② It increases the bioavailability of acetaminophen by 1.79 folds. ③ Its combination with pyrazinamide increases the plasma uric acid level. ④ Its combination with repaglinide increases the plasma repaglinide level. 	—
chloroquine phosphate	—	Prohibit to combine with the drugs that may lead to the prolonged Q-T interval (such as moxifloxacin, azithromycin, amiodarone, etc.).

Note: “—”: no relevant data; TDM: therapeutic drug monitoring; AUC: area under the curve; UGT1A9: uridine diphosphate glucosidase 1A9.

4 Guje wa lalacewar likita a cikin keɓantattun al'ummomi

Popuungiyoyi na musamman sun haɗa da mata masu juna biyu, marasa lafiya da cututtukan hepatic da na renal-cy, marasa lafiya da ke tallafawa ta hanyar motsa jiki, marasa lafiya a karkashin ci gaba na sauya kwayar cuta na yara (CRRT) ko, oxygenation na extracorporeal (ECMO), da sauransu gudanarwa.

(1) Mata masu juna biyu

Za'a iya amfani da allunan lopinavir / ritonavir. Favipiravir da chloroquine phosphate an haramta.

(2) Marasa lafiya da cututtukan hepatic insu Dr cience Magunguna waɗanda aka keɓance su ba ta canzawa ta hanyar kwace sun fi son, kamar su penicillin da cephalosporins, da sauransu.

(3) Marasa lafiya tare da rashin lafiyar koda)

Magungunan da aka lalata ta hanta ko aka keɓe ta hanyar hanta-koda na hanta sun fi dacewa, kamar su linezolid, moxifloxacin, ceftriaxone, da sauransu.

(4) Marasa lafiya a karkashin CRRT don 24h Don vancomycin, karancin kulawar da aka ba da shawara shine: Kaddamar da kashi 1 na g da kuma goyon baya na 0.5 g, q12h. Don imipenem, matsakaicin adadin yau da kullun ya kamata ya wuce 2 g.



XIV. Yarjejeniyar Ilimin halin kwakwalwa tare da Marasa COVID-19

1 Damuwar hankali da alamu na marasa lafiyar COVID-19

Tabbatar da marasa lafiya na COVID-19 sau da yawa suna da alamomi kamar baƙin ciki da fushi, kadaici da rashin taimako, baƙin ciki, damuwa da rashin tsoro, haushi da rashin bacci. Wasu marasa lafiya na iya samun harin tsoro. Binciken ilimin halayyar mutum a cikin sassan da aka keɓe ya nuna cewa, kusan 48% na marasa lafiya COVID-19 sun tabbatar da damuwa na hankali yayin shigar da wuri, yawancin su daga amsawar tunaninsu ne ga damuwa. Adadin delirium yana da yawa a cikin marasa lafiyar marasa lafiya. Akwai rahoto harma da cutar encephalitis wacce SARS-CoV-2 ke haifar da bayyanar cututtuka irin su rashin hankali da rashin damuwa.

2 Kafa ingantaccen tsari don kimantawa da gargadi game da rikicin psychological

Yakamata a kula da hankalin masu hakuri (damuwa na hankali, yanayi, yanayin bacci, da matsin lamba) a kowane mako bayan shigar da kafin fitarwa. Kayan aikin kimar-kai sun hada da: Tambayar kai-rahoton Raunin kai 20 (SRQ-20), Tambayar Kiwon Lafiya na Marasa lafiya 9 (PHQ-9) da Rikicin damuwa na rashin damuwa 7 (GAD-7). HAMD), Hamilton Tashin hankali Rating Scale (HAMA), Matsayi da Tsarkakiyar Ciwon cuta (PANSS) A cikin irin wannan yanayi na musamman kamar yadda kebe kewayen, muna ba da shawarar cewa ya kamata a jagoranci marasa lafiya don kammala tambayoyin ta wayoyin salula. Likitocin na iya yin tambayoyi da kuma yin sikelin kimantawa ta fuskar fuska ko tattaunawa ta yanar gizo.

3 Shiga ciki da magani dangane da kimantawa

3.1 Ciplesa'idojin shiga tsakani da magani

Ga marasa lafiya masu laushi, ana ba da shawarar shigar da hankali. Daidaitawar tunani game da hankalin mutum ya hada da horo na hutawa da horo game da tunani. Don matsakaici zuwa marasa lafiya masu rauni, ana ba da shawara ga shiga tsakani da magani ta hanyar haɗuwa da magunguna da psychother-apy. Ana iya tsara sabbin magungunan rigakafi, maganin rashin damuwa, da benzodiazepines don inganta yanayin marasa lafiya da ingancin bacci. Za'a iya amfani da karni na biyu na rigakafin kwayar cuta kamar olanzapine da quetiapine don inganta alamun psychotic irin su mafarki da rudani.

3.2 Shawarwarin magungunan psychotropic a cikin marasa lafiya tsofaffi

Tsarin tsufa ko tsofaffi COVID-19 yanayin likita na rikice-rikice sukan rikice ta cututtukan jiki kamar hauhawar jini da ciwon sukari. Sabili da haka, lokacin zabar magungunan psychotropic, hulɗa da miyagun kwayoyi da abubuwan da suke haifar da motsa jiki dole ne a yi la'akari sosai. Muna ba da shawarar amfani da citalopram, escitalopram, da dai sauransu don inganta yanayin rashin damuwa da alamun damuwa; benzodiazepines kamar estazolam, alprazolam, da dai sauransu don inganta damuwa da ingancin bacci; olanzapine, quetiapine, da dai sauransu don inganta alamun psychotic.

XV. Farfadojin Gyaran marasa lafiya na COVID-19 Marasa lafiya

Marasa lafiya da rashin lafiyar masu rashin lafiya suna fama da rashin lafiya daga yanayin digiri, musamman matsalar kumburin numfashi, tabarbarewa da raunin hankali, yayin yanayin raunin da kuma murmurewa.

1 Juyarwa don warkewa ga majiyyata masu rauni

Makasudin aikin tsoma bakin farko shine rage yawan cutar numfashi, kawar da alamun cutar, saukaka damuwa da bacin rai da kuma rage faruwar rikice-rikice. Tsarin hanyar farawa da wuri shine: kimantawa ta farfadowa - jiyya - sake dubawa.

1.1 Gwajin gyarawa

Dangane da kididdigar asibiti na gaba daya, musamman kimantawar aiki, gami da nutsuwa, halin bugun zuciya, motsi da ADL yakamata a jaddada. Mayar da hankali kan kimantawa na farfadowa na numfashi, wanda ya hada da kimanta aikin thoracic, amplitude motsa jiki, yanayin numfashi da mita, da sauransu.

1.2 Farfado da farfadowa

Harkokin farfadowa na marasa lafiya COVID-19 marasa lafiya da yawa sun hada da kulawa da matsayi, horo na numfashi, da kuma maganin jiki.

(1) Gudanar da aiki. Magudanar ruwa na bayan gari na iya rage tasirin kwayar sputum a kan jijiyoyin numfashi, wanda yake mahimmanci musamman inganta V / Q na hakuri. Marasa lafiya dole ne su iya koyon kansu da kansu wanda ya ba da damar nauyi don taimakawa wajen fitar da jijiyoyin jiki daga huhun huhun ko huhun huhun. Don marasa lafiya da ke amfani da abubuwan maye da jijiyoyin jiki daga damuwa, za a iya amfani da gadaje ko kuma daga kansa a kan gado ($30^\circ - 45^\circ - 60^\circ$) idan yanayin mai hakuri ya ba da izini. Tsaye shine mafi kyawun matsayin jiki don numfashi a cikin yanayin hutawa, wanda zai iya inganta habakar habakar hakuri sau daya kuma yana kula da huhu. Muddin mai hakuri yana jin dadi, bari mai hakuri ya dauki matsayin tsaye kuma sannu a hankali yana kara tsawon lokacin da yake tsaye.

(2) Motsa jiki. Motsa jiki na iya fadada huhun huhu, taimaka wajen hurawar daga huhun hanji da kuma hanyar jirgin sama da ta fitar zuwa cikin babbar tashar jirgin sama domin kada sputum ya taru a kasan huhu. Yana karuwa da mahimmancin karfi kuma yana habaka aikin huhu. Jin jinkirin numfashi mai saurin numfashi da kuma fadada kirji hade da fadada kafada sune manyan dabaru guda biyu na motsa jiki.

① Breathing Jin saurin numfashi: yayin da kake shayarwa, mai hakuri yakamata ya gwada iyakar ikonsa don motsa murfin cikin motsawa. Numfashi ya kamata ya zama mai zurfi da jinkirin-wuri don guje wa ragin yanayin numfashi wanda ya haifar da saurin numfashi. Idan aka kwatanta da numfashi na numfashi, wannan nau'in numfashi yana bukatar karfin kwayar tsoka amma yana da mafi kyawun tsari da kimar V / Q, wanda za'a iya amfani dashi don daidaita numfashi yayin fuskantar karancin numfashi.

② Breathing Inganta numfashi kirji hade da fadada kafada: lationara yawan samun iska. Lokacin da kake yin numfashi mai zurfi-mutum, mutum zai fadada kirjinsa da kafada yayin da yake shayarwa; ya kuma dawo da kirjin sa da kafada yayin da yake yin bacci. Saboda dalilai na musamman na cututtukan cututtukan huhu, dakatar da numfashi na dogon lokaci yakamata a guji daukar nauyin aiki na numfashi, da zuciya, gami da amfani da iskar oxygen. A halin yanzu, guji motsi da sauri. Daidaita adadin numfashi a lokuta 12-15 / min.

(3) Tsarin aiki na dabarun numfashi. Yana iya kawar da hanzarin hanji na hanji tare da habaka aikin huhu ba tare da bacin rai da hauhawar iska ba. Ya kunshi mataakai uku (sarrafawar numfashi, fadada thoracic da ci). Yadda za a samar da sake zagayowar numfashi ya kamata a inganta bisa ga yanayin hakuri.

(4) Mai koyar da matsanancin bugun gwaji. Rikicin kwayar kwayar cuta na marasa lafiya na COVID-19 ya lalace sosai. A cikin iska na injin, ana bukatar karancin karfi da karamin karfi don guje wa lalacewa zuwa tsakiyar jijiyoyin zuciya. Sabili da haka, bayan cirewar iska, ana iya amfani da mai koyar da matsewar motsa jiki don taimakawa motsawar motsa jiki daga sassan karamin huhun zuwa bangaren matsanancin wutar lantarki, rage girman yanayin ayyukan jira. Za'a iya haifar da matsanancin tashin hankali ta hanyar motsawar iska, wanda ke girgiza tashar jirgin sama don samun nasarar tallafin hanyar jirgin sama. Daga nan sai a cire excre din yayin da babban gudu yake fitarwa yayin da yake motsa motsawar.

(5) Rashin lafiyar jiki. Wannan ya hada da kalamam ultrashort, oscillators, na'urar bugun zuciya na waje, motsawar tsoka, da sauransu.

XVI. Canjin Tsuntsu a cikin Marasa lafiya tare da COVID-19

Yin huhun huhu sigar hanya ce ta lura da cututtukan huhu na karshe. Koyaya, ba a da labari cewa an yi jujjuyawar huhu don magance cututtukan huhu da ke fama da cutar huhu. Dangane da aikin asibiti na yanzu da kuma sakamakon, FAHZU ya takaita wannan babi a matsayin zance ga ma'aikatan kiwon lafiya. Gabaɗaya, bin ka'idodin bincike, yin mafi kyawun kofari don ceton rai, zaɓi mai zurfi da kariya mai karfi, idan raunukan huhu ba su inganta ba bayan isasshen magani da koshin lafiya, kuma mai hakuri yana cikin mawuyacin hali, za a iya la'akari da sauyawar huhun tare sauran abubuwan evaluations.

1 Gyaran wurin dasawa

(1) Shekaru: An ba da shawarar cewa masu karɓar ba su tsufa 70. Marasa lafiya waɗanda shekarunsu suka wuce 70 suna karkashin kulawa da hankali game da sauran ayyukan gabobin da ikon farfadowa na bayan fage.

(2) Hanyar cutar: Babu wata ma'amala ta kai tsaye tsakanin tsayin cutar da tsananin cutar. Koyaya, ga marasa lafiya waɗanda ke da gajeren darussan cututtukan cuta (kasa da makonni 4-6), ana ba da cikakken cikakken ilimin likita don kimanta ko an ba da isasshen magunguna, taimakon iska, da taimakon ECMO.

(3) Matsayin aikin huhu: Dangane da sigogin da aka tattara daga huhu CT, na'urar hura iska, da ECMO, ya zama dole don kimanta ko akwai damar murmurewa.

(4) Kimanta aikin wasu manyan bangarorin: a. Valuididdigar yanayin kwakwalwar marasa lafiya a cikin mawuyacin hali ta amfani da sigar kwakwalwar CT da electroencephalography abu ne mai mahimmanci, kamar yadda galibinsu za'a shafe su na tsawan lokaci; b. Gwajin zuciya, gami da electrocardiogram da echocardiography wanda ya mayar da hankali kan girman zuciyar dama, bugun zuciya da jijiyoyin zuciya da hagu, suna bada shawarar sosai; c. Hakanan ya kamata a sanya matakan matakan magani na kwayoyin halitta da bilirubin; don marasa lafiya da gazawar hanta da gazawar koda, bai kamata a tura su juyawarsu daga huhu ba har sai an dawo da ayyukan hanta da koda.

(5) Gwajin nucleic acid na COVID-19: Ya kamata a gwada mara hakuri akalla akalla gwaje-gwaje biyu na nucleic acid tare da tsakaitaccen lokaci sama da awanni 24. Ganin karuwar aukuwar sakamakon gwajin COVID-19 wanda ya dawo daga mummunan hali zuwa tabbatacce bayan jiyya, ana bada shawara don sauya matsayin zuwa sakamako uku marasa kyau. Daidai ne, yakamata a lura da sakamako mara kyau a cikin duk samfuran ruwa na jiki, wanda ya hada da jini, sputum, nasopharynx, lavage broncho-alveolar, fitsari, da feces. Idan akai la'akari da yanayin da ake aiki da shi, kodayake, akalla gwajin gwajin sikari da samfuran layuka na broncho-alveolar ya zama mara kyau.

(6) Kimanta yanayin kamuwa da cuta: Tare da tsawaitawa a cikin hakuri, wasu marasa lafiya na COVID-19 na iya samun cututtukan kwayoyin cuta da yawa, kuma don haka ana ba da cikakken kimar likita don kimanta halin da ake ciki na kamuwa da cuta, musamman ga cututtukan kwayoyin cuta masu alaƙar cuta da yawa. Haka kuma, shirye-shiryen rigakafin cututtukan kwayoyin cuta ya kamata a kirkiro su don kimanta hadarin kamuwa da cututtukan bayan hanyoyin.

(7) Tsarin aikin likita na aikin likita wanda aka tsara don juyawar huhu a cikin marassa lafiyar COVID-19: shirin jiyya wanda kungiyar ICU ta gabatar discussion tattaunawa mai zurfi → cikakkiyar kimantawar likita → bincike da kuma lura da cututtukan contraindica-jiji → haɓakawa kafin dasawa huhun huhu.

2 Contraindications

Da fatan za a koma zuwa Yankin ISHLT na 2014: Takaddar yarjejeniya don zaɓar candidatesan takarar lungan huhun huhun ciki wanda Societyungiyar forasashen Duniya don Zuciya da Lung Canjin (aka sabunta a 2014).

XVII. Ka'idojin Cirewa da Tsarin Biye da Marasa lafiya na COVID-19

1 Saukar da ka'idodi

- (1) Zafin jiki ya zama al'ada domin akalla kwanaki 3 (zazzabi na kunne yayi kasa da 37.5 °C);
- (2) Alamar numfashi yana inganta sosai;
- (3) An gwada sinadarin nucleic acid din domin cutar kwayar halittar hanji sau biyu a jere (ainahin samfur sama da awanni 24); za a iya aiwatar da gwajin gwajin acid din na samfuran sitiri a lokaci guda in ya yiwu;
- (4) Hotowar Lung yana nuna ingantacciyar cigaba a cikin raunuka;
- (5) Babu wata cuta ko rikice-rikice waƙanda ke buƙatar asibiti;
- (6) SpO₂ > 93% ba tare da taimakon shakar oxygen ba;
- (7) Zazzage fitarwa daga kungiyar likitocin horo daban-daban.

2 Magunguna bayan fitarwa

Gabaɗaya, magungunan rigakafi ba lallai ba ne bayan fitarwa. Ana iya amfani da jiyya don bayyanar cututtuka idan marasa lafiya suna da tari mai taushi, ci, mara kyau, shafi mai kauri, da sauransu.

3 Warewar gida

Dole ne marasa lafiya suci gaba da sati biyu na warewa bayan fitarwa. Shawarwarin yanayin warewar gida shine:

- ① Area Yankin rayuwa mai zaman kanta tare da samun iska mai tazara da sharar jiki;
- ② Guji hulɗa da yara, tsofaffi da mutanen da ke da rauni na rashin aiki a gida
- ③ Marasa lafiya da danginsu dole ne su sa maski da kuma wanke hannu akai-akai;
- ④ Taken Ana shan zazzabi a jiki sau biyu a rana (da safe da maraice) kuma ku kula sosai ga kowane canje-canje a yanayin mai haƙuri.

4 Biyo baya

Ya kamata a shirya kwararren likita don kowane likitan da aka sallama. Ya kamata a yi kiran farko a cikin awanni 48 bayan sallama. Za'a gudanar da aikin bin diddigin asibitin ne mako 1, sati biyu, da wata 1 bayan fitowar sa. Abubuwan binciken sun hada da ayyukan hanta da koda, gwajin jini, gwajin nucleic acid na sputum da samfuran sito, da gwajin aikin aikin huhu ko sikirin CT scan yakamata a sake dubawa gwargwadon yanayin haƙuri. Ya kamata a yi kiran waya mai zuwa 3 da watanni 6 bayan fitarwa.



Gudanar da marasa lafiya sun sake gwada tabbatacce bayan fitarwa

An aiwatar da ka'idojin zubar da shara a cikin asibitin mu. Babu wani batun da aka saki a asibitin mu wanda aka sake gwada maganin sautinsa da alamomin sahihancin su a cikin masu bin mu. Koyaya, akwai wasu maganganun da aka bayar da rahoton cewa an sake gwada lafiyar marasa lafiya kuma, bayan an fitar dasu bisa ga ka'idojin kasa (sakamako mara kyau daga akalla sau 2 jere na makogwaron da aka tattara a cikin tazara na awanni 24; zafin jiki yana saura al'ada har tsawon kwanaki 3, bayyanar cututtuka bayyanar-iyar inganta; bayyananne sha na kumburi a kan huhu hotunan). Yana da yawa saboda samfuri tarin kurakurai da karya korau sakamakon gwaji. Ga waɗannan marasa lafiya, ana bada shawarar dabarun da ke gaba:

- (1) Nesa bisa ga ka'idodin marasa lafiya na COVID-19.
- (2) Ci gaba da ba da magani na rigakafi wanda aka tabbatar da ingancinsa yayin asibiti kafin lokacin asibiti.
- (3) Fitar da cutar kawai lokacin da aka lura da cigaba akan hoton huhun huhun ciki da sifar da matattar din an gwada su ba sau 3 a jere (tare da tazara ta sa'o'i 24).
- (4) Warewar cikin gida da ziyartar biyun bayan fitarwa gwargwadon bukatun-abubuwan da aka ambata a sama.

Kashi Na Uku

I. Kulawar Jiki ga Marassa lafiya da ke karɓar Nasal-lowwalla

Cannula (HFNC) Oxygen Therapy

1 Kimantawa

Bayar da cikakken bayani game da maganin oxygen na HFNC don samun haɗin gwiwar haƙuri kafin aiwatarwa. Yi amfani da ƙananan kwayar magani mai narkewa tare da sa ido idan ya zama dole. Zabi catheter hanci da ya dace dangane da diamita na kushin hanci. Daidaita murfin kai da amfani da filastar lalata don hana raunin raunin da ya shafi na'urar a kan fatar fuska. Kula da matakin ruwa a cikin dakin hurawar. Sanya kuɗurin kwarara, yanki na hurar oxygen (FIO₂), da yawan zafin jiki na ruwa dangane da buƙatun haƙuri da haƙuri.

2 Kulawa

Yi rahoto ga likitocin da ke halartar don neman shawarar likita na maye gurbin HFNC ta hanyar motsa jiki na injiniya idan wani daga cikin abubuwan ya faru: rashin lafiyar hemodynamic, wahalar numfashi da aka tabbatar ta hanyar barkewar tsokoki na jijiyoyin jiki, hauhawar jini ya ci gaba duk da maganin koshin oxygen, raguwar kwaƙwalwa, raunin numfashi > Numfashin 40 na minti daya a ci gaba, babban adadin kwayoyin yaji.

3 Kulawa da Sirri

Yakamata a zubar da danshi, snot, da sputum tare da takarda mai nama, a jefar dasu a cikin akwati da aka rufe da sinadarin dake dauke da sinadarin na sinadarin chlorine (2500 mg / L). A madadin haka, ana iya cire siririn ta hanyar kwayoyin bakin mahaifa ko bututun ruwa kuma a zubar dashi a cikin mahadan da ke dauke da sinadarin mai-sinadarin kwayar cuta (2500 mg / L).

II. Kula da jinya na marassa lafiya tare da iskar Injiniya

1 Tsarin Gudanarwa

Yawan adadin likitan likita ff yakamata a iyakance zuwa mafi karancin lamba wanda zai iya tabbatar da amincin mai haƙuri. Wear da na'urar hurawa iska mai motsa jiki kamar PPE. Kafin a fara yin ciki, yi aikin jijiyoyin jiki da magunguna masu guba, kuma yi amfani da lokacin shakatarwar tsokoki idan ya zama dole. Sannu a hankali lura da amsawar hemodynamic yayin yin ciki. Rage motsi daga sta ff a cikin gundumar, ci gaba da tsarkakewa da kuma lalata dakin tare da fasahar tsarkakewar iska ta plasma na 30 min bayan kammala intubation.

2 Analgesia, Sedation da Gudanarwa na Delirium

Eterayyade makasudin kula da jinƙan ciwo na kowace rana. Essiddidige jin zafi tare da kowane 4 hours (Kayan aiki na Kula da Raɗaɗɗen Raɗaɗɗen Raɗawa, CPOT), auna kwance iska tare da kowane 2 hours (RASS / BISS). Yi alama da jiko na analgesics da sedative don cimma burin sarrafa jin zafi. Ga sanannun hanyoyin raɗaɗɗi, maganin rigakafin cuta yana cikin sarrafawa. Yi aikin binciken CAM-ICU delirium a cikin kowane juyawa don tabbatar da bayyanar cututtuka na farko na marasa lafiya COVID-19. Aiwatar da dabarun Centralization don rigakafin delirium, gami da sauƙin jin zafi, fitina, sadarwa, ingantaccen bacci, da kuma tattara farkon amfani da su.

3 Yin rigakafin cututtukan huhun ciki (VAP)

Ana amfani da kunshin iska mai iska don rage VAP, wanda ya haɗa da wanke hannun; haɓaka kusunwar gado na mara lafiya ta hanyar 30-45 ° idan ba a gabatar da wani sabani ba; kulawa ta baki a kowane awanni 4 zuwa 6 ta hanyar yin amfani da maganin hana ruwa na bakin. kula da bututu na karshe (ETT) cu ff matsa lamba a 30-35 cmH2O kowane sa'o'i 4; enteral abinci mai gina jiki tallafi da saka idanu na ciki saura kowane 4 hours; kimantawa kowace rana don cirewar iska; yin amfani da bututu mai shara mai dorewa don ci gaba da yin maye a haɗe tare da sirinji 10 na mil a cikin kowane awa 1 zuwa 2, da kuma daidaita adadin karfin gwargwadon gwargwadon adadin asirin. A zubar da komputa a kasa da glottis: sirinji da ke ɗauke da boyayyen subglottic ana amfani dashi nan da nan don kwarar da adadin da ya dace na maganin sinadari na sinadari (2500 mg / L), sannan a sake haɗa shi a jefa shi a cikin akwati mai kaifi.

4 Cutar Sputum

(1) Yi amfani da tsarin rufewar tsoka, ciki har da kulle ɗakin rufewa da jakar tarin sharar ajiya, don rage samuwar iska da sabo.

(2) Samfarin samfirin maniyi: yi amfani da katange ɗamarar katako tare da jakar tarin da ta dace don rage yawan haɗuwa da ruwan sanyi.

5 Zubar da dan sanda daga motocin iska

Yi amfani da bututun da za a iya tubewa da bututu mai ɗaukar hoto da injin daskarewa ta atomatik don rage samuwar isowar. Yakamata likitocin biyu suyi aiki da juna don tsinkewar kwayar ta cikin gaggawa a cikin kwandon shara tare da mai ɗauke da sinadarin mai sinadarin (2500 mg / L). Za'a iya sanya ganga kai tsaye a injin wanki, wanda za'a iya mai da wuta har zuwa 90 ° C, don tsabtatawa ta atomatik da kuma kwayar cuta.

6 Kula da ma'aikatan jinya don Canjin Sanya Jiki (PPV)

Kafin canza wurin, tabbatar da matsayin tubalin kuma bincika duk abubuwan haɗin giwi don rage hadarin cire haɗin. Canja matsayin mai hakuri kowane awa 2.

III. Gudunar da yau da kullun da Kulawa da ECMO (Extraarin Hadin Membrane Oxygenation)

- 1 Yakamata a kula da kayan aikin ECMO kuma masu amfani da kayan shafawa na ECMO kuma yakamata a bincika su kuma a rubuta su duk awa daya: Matsayin kwararar mai / saurin juyawa; saukar jini; iskar oxygen; oxygen maida hankali; tabbatar da cewa mai sarrafa zafin jiki yana gudana; yanayin zafin jiki da zazzabi na zahiri; hana clots a cikin da'ira; babu matsin lamba ga bututun jirgi da bututun bututun din ba a dame shi ba, ko kuma "girgiza" bututun ECMO; launin fitsari mai hakuri tare da kulawa ta musamman ga fitsari mai launin ja ko duhu; pre & post membrane matsa lamba kamar yadda likita ya bukata.
- 2 Abu buwan da zasu biyo baya yayin kowane motsi ya kamata a sa ido su kuma yi rikodin su: Duba zurfen da kuma gyara cannula don tabbatar da cewa mahadar kewaye ta ECMO ta kasance tabbatacce, layin matakin ruwa na mai kula da yawan zafin jiki, samar da wutar injin da hadin hadi na iskar oxygen, shafin cannula na kowane irin zubar jini da kumburi; auna gwargwadon kafafun kafa da lura ko kananan reshin akan gefen aikin yana kumbura; lura da kananan kafa, kamar dorsalis pedis artery bugun jini, zafin jiki, launi, da sauransu.
- 3 Kulawa ta yau da kullun: Binciken membrane na iskar gas na jini.
- 4 Gudunar da maganin shawo kansa: Babban asasin ECMO anticoagulation shine ya sami isasshen maganin shanyewar iska, wanda ke tabbatar da cewa wasu ayyukkan coagulation a karkashin yanayin gujewa yawan tasirin coagulation. Wannan shine a daidaita daidaituwa tsakanin cututtukan anticoagulation, coagulation da fibrinolysis. Ya kamata a saka marasa lafiya tare da sodium heparin (25-50 IU / kg) a lokacin yin ciki kuma a kiyaye shi tare da sodium heparin (7.5-20 IU / kg / h) a lokacin tafiyar famfo. Ya kamata a daidaita sashi na heparin sodium bisa ga sakamakon APTT wanda ya kamata a gudunar tsakanin seconds 40-60. A lokacin anticoagulation, yawan adadin fata yakamata a rage su. Dole ne a dauki ayyukan a hankali. Ya kamata a lura da matsayin zubar da jini da kyau.
- 5 Aiwatar da dabarun "kariya daga huhun huhun iska" don kauce wa ko rage faruwar hadarin huhun huhun iska. An bada shawara cewa karar farawa ta farko shine 6 6LL / kg kuma yawan karfin numfashi na kwance yana riƙewa (mitar numfashi ya kamata ya kasance tsakanin sau 10-20 / min).
- 6 Sannu a hankali lura da mahimmancin alamun marasa lafiya, kula da MAP tsakanin 60- 65 mmHg, CVP <8 mmHg, SpO2> 90%, kuma ku lura da matsayin yawan fitsari da jini kebewa.
- 7 Zuba jini ta hanyar membrane, da nisantar jiko na mai mai da jikin mutum yayi.
- 8 Dangane da bayanan lura, kimanta aikin ECMO oxygenator yayin kowane motsi.

IV. Kula da lafiyar NSS na ALSS (Tсарin Tallafawar hanta na wucin gadi)

Kulawar kulawa da lafiyar ALSS ya kasu kashi biyu ne na biyu: kulawar renon yayin kulawa da kulawa ta wucin gadi. Nursing sta N ya kamata lura da yanayin marasa lafiya a hankali, daidaita tsarin aikin, mayar da hankali kan mahimman abubuwan da kuma magance rikice-rikicen lokaci domin cin nasarar cikakkiyar maganin ALSS.

1 Kulawar Nursing yayin Jiyya

Yana nufin jinya yayin kowane mataki na maganin ALSS. Za'a iya takaita tsarin aikin gaba ɗaya kamar haka: shiri na kansa na mai aiki, kimar hakuri, shigarwa, shimfidar fara aiki, gudana, daidaita sigogi, weaning da rikodi. Abubuwan da ke gaba sune mahimman abubuwan kula da kulawa a yayin kowane mataki:

(1) Operator nasa shiri

Gabaɗaya kan Matattara III ko ma tsauraran matakan kariya.

(2) Gwajin hakuri

Gane yanayin asali na mara lafiya, musamman tarihin kwallon kwayar cuta, aikin haɓaka jini, aikin coagulation, maganin oxygen, kwancewar jiki (ga marasa lafiyar da ke cikin damuwa, kula da yanayin hankalinsu) da yanayin aiki na catheter.

(3) Shigarwa da pre-flushing

Yi amfani da abubuwan amfani da kayan maye tare da gudanar da madauki yayin da kake guje wa boyewa zuwa jinin mai hakuri da ruwayen jiki. Ya kamata a zaɓi kayan aikin da suka dace, bututun mai da sauran abubuwan amfani gwargwadon yanayin aikin da aka shirya. Duk mahimman ayyuka da halaye na abubuwan cin abincin za a iya sanin su.

(4) Gudun

An ba da shawarar cewa farkon hawan jini shine ≤ 35 mL / min don gujewa karancin jini wanda hakan na iya haifar da hawan jini. Yakamata a kula da alamun mahimmanci.

(5) Daidaitawa Mataki

Lokacin da rarrabawar marasa lafiya ya kasance barga, duk sigogi na jiyya da sigogi na kararrawa ya kamata a daidaita su bisa ga yanayin kulawa. An ba da shawarar yawan maganin anticoagulant a farkon matakin kuma ya kamata a daidaita sashin anticoagulant yayin lokacin tabbatarwa gwargwadon matsin lamba na jiyya.

(6) Yarinya

Dawo kan "ruwa nauyi hade hanya maida"; saurin dawowa ≤ 35 mL / min; bayan yayen, yakamata a kula da sharar likitanci gwargwadon rigakafin kamuwa da cutar SARS-Cov-2 da bukatun sarrafawa da dakin tiyata da kayan aikin ya kamata a tsafata su kuma a lalata.

(7) Rikodi

Yi bayanan daidai game da mahimman alamomin hakuri, magunguna da sigogi na magani don ALSS kuma dauki bayanan kula akan yanayi na musamman.

2 Kulawa Na Cikin Gaggawa

(1) Lura da lura da rikice-rikice

Allergic halayen, rashin daidaituwa syndromes, da sauransu

(2) Kulawar Shigar da AISS

Staungiyar lafiya Medical yayin kowane juzu'i ya kamata ya lura da yanayin mai hakuri da kuma yin bayanan; hana thrombosis mai dangantaka da catheter; gudanar da aikin kwantar da hankali na catheter kowane awanni 48;

(3) Kulawar Alkhairi da Inganta AISS

Ya kamata a yi aikin motsa jiki kafin a fitar dashi. Bayan an gama fitar da kafa, Kananan reshe tare da gefen jijiyar marasa lafiya bai kamata a motsa su cikin awanni 6 ba kuma mai hakuri ya kamata ya huta a gado tsawon awanni 24. Bayan an yi amfani da kayan tarihi, za a lura da abin da ke zuciyar.

V. Cigaba da Ci Gaba da Maimaitawa Na Rashin Canji na Rashin Jinkai (CRRT)

1 Shiri kafin CRRT

Shiri don hakuri: kafa hanyoyin samun lafiyar jijiyoyin jiki. Gabafaya, ana yin catheterization na tsakiya don CRRT, tare da fifikon jijiyar ciki Za'a iya hada na'urar CRRT cikin da'irar ECMO idan ana amfani da biyun a lokaci guda. Shirya kayan aiki, abubuwan da za ayi amfani da su, da kuma aikin hada magunguna kafin CRRT.

2 Kulawar Cikin Gaggawa

(1) Kulawar Jijiyoyin Jiki:

Aikata kwararrun catheter kulawa kowane awa 24 ga marasa lafiya da tsakiyar catheterization na tsakiya don su iya gyara hanyar da ta dace don gujewa gurbata da matsawa. Lokacin da aka haɗu da CRRT a cikin aikin jiyya na ECMO, ma'aikatan jinya su biyu yakamata a tabbatar da jerin abubuwan da za a iya dauka a cikin haɗin catheter. Duk hanyoyin fitar dasu da kuma layin CRRT mai ban sha'awa ana ba da shawarar a haɗa su a bayan oxygenator.

(2) Kula da hankali sosai da mahimmancin alamun marasa lafiya; daidai lissafta ruwa mai gudana da kuma kwarara. A hankali lura da zubar da jini tsakanin jijiyoyin zuciya, ka amsa kai tsaye zuwa duk wani alamu, ka tabbatar da cewa injin yana aiki da kyau. Gane ma'aunin electrolyte da acid-base a cikin yanayin ciki ta hanyar binciken gas na jini kowane awa 4. Ya kamata a shirya sabon ruwan da aka sayo shi sabo kuma a sa masa alama a sarari a cikin tsauraran tsauraran yanayi.

3 Kula da Bayan Aiki

(1) Kula da aikin jini, hanta da aikin koda da aikin coagulation.

(2) Shafa injin CRRT kowane awa 24 idan ana amfani da ci gaba da magani. Ya kamata a zubar da abubuwa masu amfani da ruwan sha tare da kayyadaddun buƙatu na asibiti don guje wa kamuwa da cuta da cuta.

VI. Janar kulawa

1 Kulawa

Ya kamata a kula da alamun masu hakuri da kulawa akai-akai, musamman canje-canje a cikin kwakwalwar hankali, raunin numfashi da jikewar oxygen. Lura da alamomin kamar tari, sputum, Karar kirji, dyspnea, da cyanosis. Saka idanu jijiyoyin jijiyoyin jini. Gane lokaci na kowane lalacewa don daidaita dabarun maganin oxygen ko daukar matakan gaggawa na gaggawa. Kula da mai da iska mai rauni wanda ke da alaƙa da raunin huhu (VALI) lokacinda ke karkashin matattarar karfi mai karewa (PEEP) da tallafi mai karfi. Sannu a hankali sa ido kan canje-canje a cikin matsewar iska, Kara yawan karfi da kuma yawan numfashi.

2 Cigaba da Cigaban

(1) Mai lura da rikewar kwayar kwayar cuta: yi ci gaba da ciyar da bayan kwayar-pyloric tare da fam din abinci don rage gastroesophageal reflux. Kimanta yanayin motsa ciki da rikewa na ciki tare da duban dan tayi idan ya yiwu. Mai ba da hakuri tare da datse na ciki na yau da kullun ba'a bada shawarar don kimantawa na yau da kullun ba;

(2) Kimanta tsayuwu na ciki kowane awa 4. Sake sake da burin idan girman saura na ciki ya kasance <100 ml; in ba haka ba, kai rahoto ga likitan halartar;

(3) Yin rigakafin fata yayin jigilar hakuri: kafin sufuri, dakatar da ciyar da hanci, nemi raguna na ciki kuma ku hada bututun na ciki zuwa jakar matsa lamba mara kyau. Yayin zirga-zirga, daga shugaban hakuri har zuwa 30 °;

(4) Yin rigakafin afkuwa a yayin HFNC: Bincika mai yin hutu a duk bayan awa 4 don kaurace wa matsanancin zafi ko gumi. Cire duk wani ruwa da aka tara shi a cikin rijiyar nan da nan don hana tari da muradin da ya faru ta hanyar shigar iska mai hadari a cikin hanyar jirgin sama. Rike matsayin hanci na hanci sama da injin da shambura. Cire cire hanzari cikin tsarin.

3 Aiwatar da dabarun hana kamuwa da cutar cututtukan zuciya da kamuwa da cututtukan urinary na ciki.

4 Yana hana raunin fata rauni, gami da raunin da ya shafi na'urar-raunin raunin da ya faru, cututtukan da suka shafi haduwa da raunin fata da ke tattare da cutar. Bayyana marasa lafiya a cikin babban hadari tare da Sikalin Kimar Hadarin da aiwatar da dabarun rigakafin.

5 Gane duk marasa lafiya a lokacin yarda da lokacin da yanayin asibitirsu suka canza tare da samfurin kididdigar hadarin VTE don gano waƙanda ke cikin babban hadari da aiwatar da dabarun rigakafin. Saka idanu aikin coagulation, matakan D-dimer da abubuwan bayyanawa na aikin asibiti na VTE.

6 Taimakawa cin abinci don marasa lafiya masu rauni, gajeriya numfashi ko kuma waƙanda ke da alamun shaƙatar fitar iska mai narkewa ta iska. Inganta yanayin kulawar oxygenation akan wadannan marasa lafiya yayin abinci. Bayar da abinci mai gina jiki a farkon mataƙai ga waƙanda basu iya cin abinci da bakinsu. Yayin kowane motsi, daidaita karancin abinci mai gina jiki da adadi gwargwadon hakurin abinci mai koshin abinci.

Shafi

I. Misalin Bayar da Shawara kan Lafiya don Marasa lafiya na COVID-19

1 Nasihun likita na MAGANIN COVID-19

1.1 Talakawa

- * warewar iska, saka idanu akan jijiyar oxygen, jiyya oxygen tare da hanci

1.2 Nazarin

- * 2019 Noro Coronavirus RNA Gano (Wuraren Uku) (Sputum) qd
- * 2019 Noro Coronavirus RNA Gano (Wuraren Uku) (Feces) qd
- * Tsarin rayuwa na jini, bayanin kwayar halitta, aikin fitsari, aikin yau da kullun + OB, aikin coagulation + D dimer, nazarin gas + lactic acid, ASO + RF + CPR + CCP, ESR, PCT, ABO + RH nau'in jini, aikin thyroid, cardiac enzymes + yawa assay na serum troponin, abubuwa hudu na yau da kullun, gwajin kwayar kwayar cuta, cytokines, G / GM gwajin, angiotensin yana canza enzymeLiver, gallbladder, pancreas and spleen ultrasound, echocardiography and lung CT scan

1.3 Magunguna

- * Arbidol tablets 200 mg po tid
- * Lopinavir/Ritonavir 2 tablets po q12h
- * Interferon spray 1 spray pr. tid

2 Shawarwarin likita na Matsakaicin COVID-19 Cases

2.1 Talakawa

- Warewar iska, saka idanu akan jijiyar oxygen, jiyya oxygen tare da hanc

2.2 Nazarin

- 2019 Noro Coronavirus RNA Gano (Wuraren Uku) (Sputum) qd
- 2019 Noro Coronavirus RNA Gano (Wuraren Uku) (Feces) qd
- Tsarin rayuwa na jini, bayanin kwayar halitta, aikin fitsari, aikin yau da kullun + OB, aikin coagulation + D dimer, nazarin gas + lactic acid, ASO + RF + CPR + CCP, ESR, PCT, ABO + RH nau'in jini, aikin thyroid, cardiac enzymes + yawa assay na serum troponin, abubuwa hudu na yau da kullun, gwajin kwayar kwayar cuta, cytokines, G / GM gwajin, angiotensin yana canza enzyme
- hanta, gallbladder, pancreas da spleen duban dan tayi, kyankyasai da kuma huhun CT scan

2.3 Magunguna

- Arbidol tablets 200 mg po tid
- Lopinavir/Ritonavir 2 tablets po q12h
- Interferon spray 1 spray pr.nar tid
- NS 100 mL + Ambroxol 30mg ivgtt bid

3 Nasihun likita game da Mummunan COVID-19

3.1 Talakawa

- Warewar iska, saka idanu akan jijiyar oxygen, jiyya oxygen tare da hanci

3.2 Nazarin

- 2019 Noro Coronavirus RNA Gano (Wurarens Uku) (Sputum) qd
- 2019 Noro Coronavirus RNA Gano (Wurarens Uku) (Feces) qd
- Tsarin rayuwa na jini, bayanin kwayar halitta, aikin fitsari, aikin yau da kullun + OB, aikin coagulation + D dimer, nazarin gas + lactic acid, ASO + RF + CPR + CCP, ESR, PCT, ABO + RH nau'in jini, aikin thyroid, cardiac enzymes + yawa assay na serum troponin, abubuwa huɗu na yau da kullun, gwajin kwayar kwayar cuta, cytokines, G / GM gwajin, angiotensin yana canza enzyme
- hanta, gallbladder, pancreas da spleen duban dan tayi, kyankyasai da kuma huhun CT scan

3.3 Magunguna

- Arbidol tablets 200 mg tid
- Lopinavir/Ritonavir 2 tablets po q12h
- Interferon spray 1 spray pr.nar tid
- NS 100 mL + methylprednisolone 40 mg ivgftt qd
- NS 100 mL + pantoprazole 40 mg ivgftt qd
- Caltrate 1 tablet qd
- Immunoglobulin 20 g ivgftt qd
- NS 100 mL + Ambroxol 30 mg ivgftt bid

4 Shawarar likita na Magungunan COVID-19 masu mahimmanci

4.1 Talakawa

Warewa iska, lura da satifiket din jini, jinyar oxygen tare da hanci

4.2 Nazarin

- 2019 Noro Coronavirus RNA Gano (Wurare Uku) (Sputum) qd
- 2019 Noro Coronavirus RNA Gano (Wurare Uku) (Feces) qd
- Ayyukan jini, ABO + RH nau'in jini, aikin fitsari, aikin yau da kullun + OB, abubuwa huɗu na yau da kullun, gwajin kwayar kwayar kwayar cuta, aikin thyroid, electrocardiogram, nazarin gas na jini + electrolyte + lactic acid + GS, gwajin G / GM, al'adar jini ONCE
- Ayyukan yau da kullun na jini, bayanin tarihin halitta, aikin coagulation + D dimer, nazarin gas na jini + lactic acid, natriuretic peptide, cardiac enzyme, adadi mai yawa na kwayoyin serum, immunoglobulin + cikawa, cytokine, al'adun sputum, CRP, PCT qdBlood glucose measurement q6h
- hanta, gallbladder, pancreas da spleen duban dan tayi, ilimin halittar mahaifa da huhun CT scan

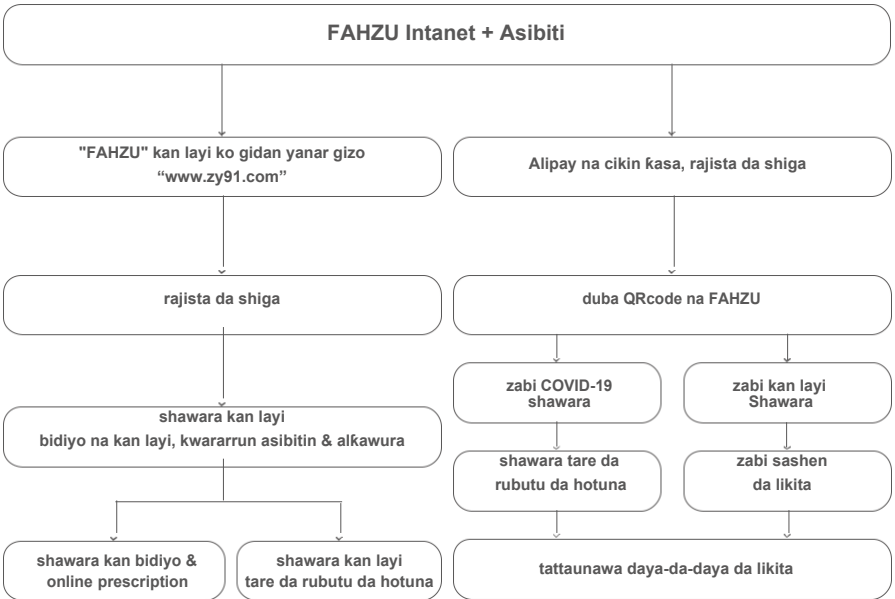
4.3 Magunguna

- Arbidol tablets 200 mg po. tid
- Lopinavir/Ritonavir 2 tablets q12h (or darunavir 1 tablet qd)
- NS 10 mL + methylprednisolone 40 mg iv q12h
- NS 100 mL + pantoprazole 40 mg ivgtt qd
- Immunoglobulin 20 g ivgtt qd
- Thymic peptides 1.6 mg ih biw
- NS 10 mL + Ambroxol 30 mg iv bid
- NS 50 mL + isoproterenol 2 mg iv-vp once
- Human serum albumin 10 g ivgtt qd
- NS100 mL + piperacillin/tazobactam 4.5 ivgtt q8h
- Enteral nutrition suspension (Peptisorb liquid) 500 mL nasogastric feeding bid

II. Tsarin Neman Bayanin Kan Layi na Binciken Cutar Ganowa da Kulawa

2.1 Tattaunawar kan layi akan Cutar Cutar da Cututtuka

Umarnin kan FAHZU Intanet + Asibiti



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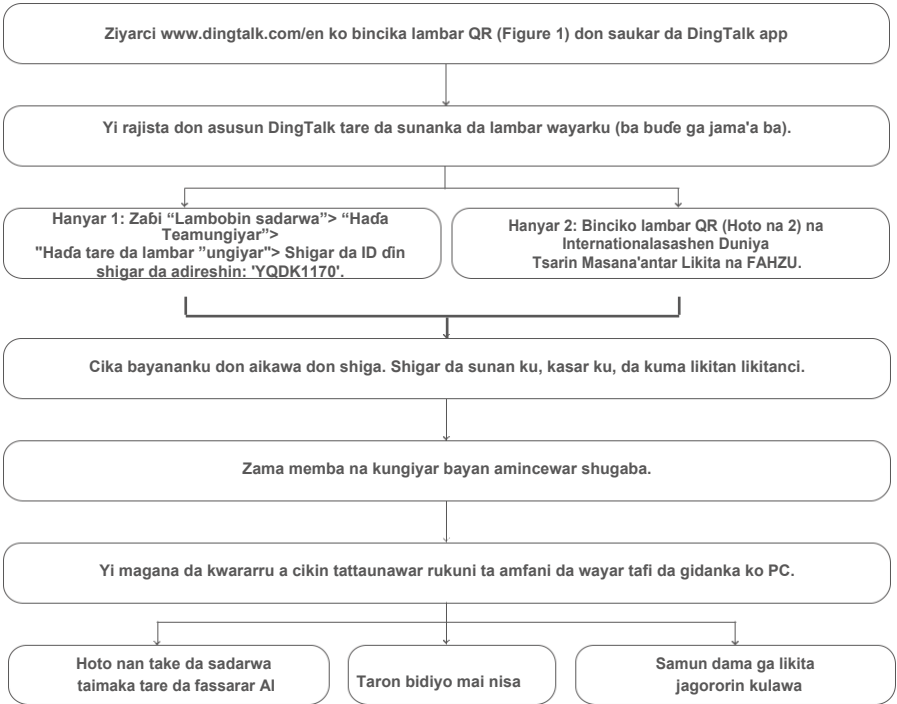
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Da fatan za a iya tuntube mu:

Email: zdy6616@126.com, zyinternational@163.com

2.2 Kayan Sadarwa na Likitocin kan layi

Umarnin kan Expertungiyar Masana'antar Likita ta Kasa da Kasa na Farko Wani asibitin da ya sauka, Makarantar Medicine ta Jami'ar Zhejiang



Bayani: Duba lambar QR na Figure 3 don saukar da jagorar mai amfani

Kwamitin Edita

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Wakilai: CAI Hongliu, CHEN Yu, CHEN Zuobing, FANG Qiang, HAN Weili, HU Shaohua, LI Jianping, LI Tong, LU Xiaoyang, QIU Yunqing, QU Tingting, SHEN Yihong, SHENG Jifang, WANG Huafen, WEI Guoqing, XU Kaijin, ZHAO Xuehong, ZHONG Zifeng, ZHOU Jianying

Tunani

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Siffar FAHZU

An kafa shi a cikin 1947, Asibitin Farko na farko, asibitin koyarwa na Jami'ar Zhejiang (FAHZU), shine farkon farkon asibitin da aka bayar da izini na Jami'ar Zhejiang. Tare da wuraren karatun guda shida, yanzu ya zama cikin cibiyar likitanci wanda ya haɗa da kula da lafiya, ilimin likita, bincike na kimiyya da kulawa mai hanawa. Game da karfin gaba daya, FAHZU tana matsayi na 14 a kasar Sin.

A matsayin babban asibiti mai girman gaske, a halin yanzu tana da ma'aikata sama da 6,500, gami da masana kimiyya na Kwalejin Injiniya, Malaman Nationalan Marubutan andasa da sauran fitattun mawaka. Akwai gadaje 4,000 na marasa lafiya a cikin FAHZU. Babban zangon aikinta ya dauki nauyin gaggawa miliyan 5 da kuma masu zuwa na marasa lafiya a shekarar 2019.

A cikin shekarun da suka gabata, FAHZU ya sami nasarar inganta wasu mashahurai shirye-shirye a cikin dasa kwayoyin, cututtukan cututtukan cututtukan zuciya, cututtukan cututtukan zuciya, cututtukan zuciya, cututtukan zuciya, likitan dabbobi, da sauransu, FAHZU yana taimaka wa mutane da yawa dajin kamuwa da cutar kansa da more rayuwa na tsawon lokaci. FAHZU shima mai haɓaka samar da hanta, kwayar huhu, huhu, koda, hanji da motsin zuciya. A cikin yakar SARS, H7N9 avian mura da COVID-19, ta sami gogewa mai amfani da sakamako mai kyau. A sakamakon haka, kwararrun likitocin sa sun buga kasidu da yawa a cikin mujallu kamar New England Journal of Medicine, Lancet, Nature DA Kimiyya.

FAHZU ya kasance mai fa'ida cikin musayar kasashen waje da hadin gwiwa. Ya kafa kungiyoyi tare da manyan jami'o'i sama da 30 a duk faɗin duniya. Hakanan an sami nasarorin da aka samu ta hanyar musayar kwararrun likitocin mu da fasahar kere kere tare da Indonesia, Malesiya da sauran kasashe.

Dangane da mahimmancin neman gaskiya tare da tunani, FAHZU yana nan don samar da ingantacciyar kulawar lafiya ga duk mai bukata.

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