Table 1: All 39 synthe	etic patients used in th	e study.*
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Synthetic Patient	Correct Answer	Difficulty
Patient is positive for covid-19, is hypoxic and needs supplemental oxygen. Patient has a history of renal transplant. His eGFR is 61 ml/min. He takes medications that interact with Paxlovid. He has no contraindications for remdesivir and can receive it at nearby infusion center.	Check CDC/IDSA/NIH Guidance	hard
An 18-year-old patient has tested positive for Covid-19. He weighs 60 kg and/ asymptomatic. The patient does not need hospitalization. He has eGFR of 72 ml/min. He also takes medications that interact with Paxlovid. He cannot take remdesivir as he has no access to infusion center and does not want to be admitted to hospital.	Outpatient treatment options not authorized or recom- mended. Place in monitoring and supportive care only	hard
An 18-year-old boy/male, weighing 60 kg tested for Covid-19 and results are negative. He has a history of genetic blood disorder and chronic kidney disease with eGFR of 32 ml/min. Patient takes medication that induces CYP3A4 enzyme and interacts with paxlovid. He cannot take remdesivir as he does not have nearby infusion center and does not want to be admitted to the hospital.	Vaccination and booster is recommended	hard
A 28-year-old biological female tested positive for Covid-19. She weighs 65 kg. She is not pregnant currently. Patient is not hospitalized and do not require supplemental oxygen. Patients received a deceased donor kidney transplant 3 years back, which make her a high risk patient. The patient's eGFR=61 ml/min. And the patient do not have any liver issues. And the patient is taking other medications that can be coordinated/given with Paxlovid. And the patient can also get/ has access to outpatient infusion or inpatient admission for remdesivir.	Paxlovid Dosing: Nirmatrelvir 300 mg 2x daily for 5 days and Ritonavir 100 mg 2x daily for 5 days	hard
A patient, born on May 11, 1989, underwent a diagnostic test (NAAT) for Covid-19 and tested positive. The patient's weight stands at 40 kg and has a peculiar genetic blood disorder. A crucial indicator of kidney function, known as the glomerular filtration rate (GFR), is abnormally low, measuring at 32 ml/min, signifying impaired kidney function. And the patient's liver is functioning normally. Patient do not require increased oxygen. Presently, the patient refrains from the use of any additional medications, can get remdesivir. Given these intricate circumstances, determine the appropriate course of treatment for this patient. What treatment should the patient receive?	Paxlovid Dosing: Nirmatrelvir 150 mg 2x daily for 5 days and Ritonavir 100 mg 2x daily for 5 days	hard

We are currently presented with a female patient who has recently undergone a Covid-19 antigen test, yielding a positive result. The patient does not need hospitalization. The patient is 18 years old and weighs 58 kg, not pregnant. Notably, the patient has received a liver transplant from a deceased donor. Now the patient's liver is very healthy. In terms of kidney function, the patient's glomerular filtration rate stands at 61 ml/min. Additionally, the patient is taking multiple medications, some of which may interact adversely with Paxlovid. However, the patient has physician's permission for remdesivir.

Remdesivir Dosing: 200 mg hard IV on day 1, 100 mg IV on days 2 & 3

We are currently presented with a female patient who has recently undergone a Covid-19 antigen test, yielding a positive result. The patient does not need increased oxygen. The patient is 18 years old and weighs 58 kg. Notably, the patient received a liver transplant from a deceased donor. In terms of kidney function, the patient's glomerular filtration rate stands at 21 ml/min. The patient does not have liver issues. Additionally, the patient is taking multiple medications, some of which may interact adversely with Paxlovid. However, the patient has been granted permission for the administration of remdesivir and have access to it. Given these intricate circumstances, What treatment should the patient receive?

Remdesivir Dosing: 200 mg hard IV on day 1, 100 mg IV on days 2 & 3

A patient has recently undergone NAAT test for Covid-19 and received a positive result. The patient is a female, not pregnant, and is only 12 years old, weighing 40 kg. The patient does not need increased oxygen. It is worth mentioning that the patient has a genetic blood disorder. Her glomerular filtration rate stands at 32 ml/min, indicating impaired kidney function. And the patient's liver is in a healthy state. Moreover, the patient is currently taking other medications that conflict with the usage of Paxlovid. Additionally, the patient does not have access for the administration of remdesivir. Given these complex circumstances, What treatment should the patient receive?

Outpatient treatment options hard not authorized or recommended. Place in monitoring and supportive care only

We are confronted with a patient who has yielded a positive result in a Covid-19 antigen test, signaling a true acute infection. But the patient does not need hospitalization. The patient is a female, not currently pregnant, and is in her 19th year, with a weight of 40 kg. Pertinently, the patient carries a hereditary blood disorder. The glomerular filtration rate is alarmingly low, measuring at 36 ml/min, highlighting impaired kidney function. Patient has always pay attention to her liver health, and her liver thanks her for that. Patient is taking drugs conflict with Paxlovid. Furthermore, the patient does not have access for the infusion center.

Molnupiravir dosing: 800 mg (four 200 mg capsules) orally twice daily for 5 days

We are faced with a patient who has obtained a true positive result with Covid-19 NAAT testing. The patient is not hospitalized. The patient is a female, currently not pregnant, and is 17 years old, with a weight of 40 kg. Notably, the patient is afflicted with a genetic blood disorder. A concerning aspect is the patient's glomerular filtration rate, which stands at 32 ml/min, indicating compromised kidney function. Patient have liver failures. Furthermore, the patient has not yet been granted authorization for the administration of remdesivir.

Outpatient treatment options hard not authorized or recommended. Place in monitoring and supportive care only

We are presented with a patient who has tested positive with Covid-19 NAAT. The patient does not require increased oxygen or hospitalization. The patient is a 19-year-old female weighing 42 kg and is not currently pregnant. It is noteworthy that the patient has undergone a surgical procedure involving the transplantation of healthy bone marrow stem cells to replace diseased or damaged bone marrow. The patient's glomerular filtration rate is measured at 29 ml/min, indicating compromised kidney function. Moreover, the patient does not have access to the use of remdesivir.

Molnupiravir dosing: 800 mg (four 200 mg capsules) orally twice daily for 5 days

We encountered a patient who has tested positive with Covid-19 NAAT. The patient is a 17-year-old female weighing 32 kg and is not currently pregnant. Patient does not need hospitalization. Importantly, the patient has been diagnosed with a debilitating lung disease characterized by airway inflammation and damage, leading to breathing difficulties. Additionally, the patient's glomerular filtration rate (GFR) is measured at 32 ml/min, indicating impaired kidney function. In the patient's liver examinations, there are some figures above or below the standard range. It is noteworthy that the patient has been granted permission for the administration of remdesivir and have access to it.

Remdesivir Dosing: 5 mg/kg IV on day 1 followed by 2.5 mg/ kg IV once daily from day 2 to day 3

hard

medium

We are faced with a patient who has tested positive with Covid-19 NAAT. Patient does not require increased oxygen or hospitalization. The patient is an 11-year-old female weighing 32 kg and is not currently pregnant. Notably, the patient has been diagnosed with a challenging lung disease (bronchiectesis) characterized by airway inflammation and damage, resulting in breathing problems. Patient's liver is very healthy. Moreover, the patient has not yet been granted authorization for the use of remdesivir.

Outpatient treatment options not authorized or recommended. Place in monitoring and supportive care only

Patient has tested positive for covid-19 and requires supplemental oxygen.

An 18-year-old patient tested positive for Covid-19, weighs

Outpatient treatment options medium

60 kg. He is asymptomatic.

not authorized or recommended. Place in monitoring and supportive care only

Check CDC/IDSA/NIH Guid-

An 18-year-old tested negative for Covid-19. He weights 60 kg.

Vaccination and booster is recmedium ommended

We have a patient who has a positive Covid-19 antigen test, female, 28 years old and weighs 65 kg. Patient does not need increased oxygen. Patient received a deceased donor kidney transplant 3 years back and has GFR=61 ml/min. She takes other medications that can be coordinated / given with Paxlovid. And the patient has been approved for remdesivir.

Paxlovid Dosing: Nirmatrelvir medium 300 mg 2x daily for 5 days and Ritonavir 100 mg 2x daily for 5 days

We have a 31-year-old thin patient testing positive for Covid-19 NAAT. She weighs 40 kg. She does not need increased oxygen. Patient has a history of genetic blood disorder. The patient has chronic kidney disease with eGFR=32 ml/min. She does not take other medications. And the patient has insurance's permission for remdesivir infusion so has access to it.

Paxlovid Dosing: Nirmatrelvir 150 mg 2x daily for 5 days and Ritonavir 100 mg 2x daily for 5 days

s meaium

We have an 18-year-old female patient who has a positive antigen test, weighing 58 kg. Patient does not need hospitalization. Patient received a liver transplant from her brother 2 years back and it was very successful. The patient has a GFR=61 ml/min. And the patient takes other medications that conflicts with Paxlovid. She has her insurance's permission for remdesivir for outpatient infusion.

Remdesivir Dosing: 200 mg IV on day 1, 100 mg IV on days 2 & 3

medium

We have a female patient who has a true positive result for Covid-19 antigen test, not pregnant, 17 years old and weighs 40 kg. She does not need hospitalization. Patient has a genetic blood disorder. Her GFR=29 ml/min. She took medications conflict with Paxlovid. And the patient has been granted permission for the infusion of remdesivir.

Remdesivir Dosing: 200 mg IV on day 1, 100 mg IV on days 2 & 3

medium

We have a female patient testing positive for Covid-19 NAAT test. Patient does not need increased oxygen. She is 12 years old, not pregnant and weighs 41 kg. Patient has a genetic blood disorder and GFR=32 ml/min and does not have any liver problem. She takes medications that conflict with Paxlovid. She does not have permission for remdesivir.

Outpatient treatment options not authorized or recommended. Place in monitoring and supportive care only

medium

We have a patient who has a positive Covid-19 antigen test, female, not pregnant, 18 years old and weighs 58 kg. Patient does not need hospitalization. Patient received a donated liver from her uncle and it was a successful transplant surgery. Her liver is functioning well. The patient has a GFR=61 ml/min. And the patient takes other medications that conflict and interact with Paxlovid. Patient does not have permission for remdesivir infusion.

Molnupiravir dosing: 800 mg (four 200 mg capsules) orally twice daily for 5 days

medium

We have a patient who has a true result for Covid-19 NAAT, female, not pregnant, 17 years old and weighs 40 kg. She does not need hospitalization. Patient has a genetic blood disorder. The patient has a GFR=29 ml/min. And she does not yet have permission for remdesivir.

Outpatient treatment options not authorized or recommended. Place in monitoring and supportive care only medium

We have a patient with a positive Covid-19 NAAT, female, 19 years old and weighs 42 kg. Patient does not need hospitalization. Patient is not pregnant. Patient had a surgery involving replacing a person's diseased or damaged bone marrow with healthy bone marrow stem cells. The patient has a GFR=29 ml/min. And the patient does not yet have permission/authorization for remdesivir. What treatment should the patient receive?

Molnupiravir dosing: 800 mg medium (four 200 mg capsules) orally twice daily for 5 days

We have a 17-year-old female patient with a positive Covid-19 NAAT. Patient does not need hospitalization. She weighs 32 kg. Patient is not pregnant. Patients has a history of lung disease that makes it difficult to breathe due to inflammation and damage to the airways. The patient has a GFR=29 ml/min. And the patient received permission for remdesivir and have access to it. What treatment should the patient receive?

Remdesivir Dosing: 5 mg/kg medium IV on day 1 followed by 2.5 mg/ kg IV once daily from day 2 to day 3

medium

easy

easy

We have a patient with a positive NAAT Covid-19 test, female, 11 years old and weighs 32 kg. Patient does not need hospitalizations. Patient is not pregnant. Patient has history of chronic lung disease (bronchiectesis) that makes it difficult to breathe due to inflammation and damage to the airways. Patient's GFR is 4mL/min and does not take any drugs that cause conflict with Paxlovid. And the patient has not received authorization for remdesivir.

Outpatient treatment options not authorized or recommended. Place in monitoring and supportive care only

The patient has covid-19, oxygen saturation (Sp02) at room air is low and needs supplemental oxygen.

A 34-year-old patient has tested positive for SARS-CoV-2 and weighs 62 kg. Patient does not need increased oxygen. He is asymptomatic and has no major clinical risk factors in his history.

A 16-year-old boy tested negative for Covid-19. His weight is 44 kg.

A 28-year-old female has a past medical history of kidney transplant and takes immunosuppression drugs. She weights 65 kg and has tested positive for Covid-19. She does not need hospitalization. And she does not have any chronic kidney disease with a GFR of 94 mL/min. Her immunosuppressive medications do not interact with paxlovid and she can hold few other home medicines while taking paxlovid. She can also take remdesivir at nearest infusion center.

A 31-year-old female, weighing 40 kg, tested positive for covid-19. The patient does not need hospitalization. She has a history of genetic blood disorder and cardiovascular disease. She has a GFR of 32 mL/min and does not have any hepatic impairment. But does not take any medications. She has access to outpatient infusion or inpatient admission for remdesivir.

Check CDC/IDSA/NIH Guideasy

Outpatient treatment options not authorized or recommended. Place in monitoring and supportive care only

Vaccination and booster is receasy ommended

Paxlovid Dosing: Nirmatrelvir 300 mg 2x daily for 5 days and Ritonavir 100 mg 2x daily for 5 days

Paxlovid Dosing: Nirmatrelvir 150 mg 2x daily for 5 days and Ritonavir 100 mg 2x daily for 5 days

We have a patient who is covid-19 positive, female, 18 years old and weighs 58 kg. Patient is taking immunosuppressive drugs. Patient is not hospitalized. The patient has a GFR=61 ml/min. Patient does not have hepatic impairment. The patient is taking other medications that cannot be held, dose adjusted or substituted while Paxlovid is given. The patient has access to outpatient infusion or inpatient admission for administration of remdesivir.

Remdesivir Dosing: 200 mg easy IV on day 1, 100 mg IV on days 2 & 3

We have an 18-year-old non pregnant female patient who has a positive covid-19 test and weighs 58 kg. Patient is not hospitalized. The patient is a bone marrow transplant recipient at the age of 8 years. The patient has a GFR=31 ml/min. But the patient has hepatic impairment. She takes other medications that cannot be dose-adjusted with Paxlovid. Patient can get remdesivir.

Remdesivir Dosing: 200 mg eas: IV on day 1, 100 mg IV on days 2 & 3

We have a 12-year-old non pregnant female weighing 40 kg testing positive for Covid-19. The patient does not need increased oxygen. She has chronic kidney disease and is at high risk for disease progression due to Covid-19. Patient has a genetic blood disorder and GFR=32 ml/min. Patient does not have any liver issues. She takes medications that conflict with Paxlovid. And the patient does not have access to remdesivir.

Outpatient treatment options not authorized or recommended. Place in monitoring and supportive care only

easy

We have a patient who has a positive result for covid-19, female, not pregnant, 18 years old and weighs 40 kg. Patient does not require increased oxygen. The patient is at high risk for Covid-19 disease progression. She has GFR of 36 mL/min, does not have hepatic impairment. The patient is taking other drug conflict with Paxlovid. And the patient does not has authorization for outpatient infusion for remdesivir.

Molnupiravir dosing: 800 mg (four 200 mg capsules) orally twice daily for 5 days

A 17-year-old non pregnant female weighs 40 kg and tested positive for Covid-19. Patient does not need hospitalization. The patient is at high risk for clinical deterioration. The patient has severe renal impairment. And she does not yet have authorization for administration of remdesivir.

Outpatient treatment options eas not authorized or recommended. Place in monitoring and supportive care only

We have a patient with a positive covid-19 test, female, 19 years old and weighs 42 kg. Patient is not hospitalized. Patient is not pregnant. Patients had a recent surgery which puts her at high risk for clinical decompensation from Covid-19. The patient has a GFR=29 ml/min. And she does not yet have access for administration for remdesivir.

Molnupiravir dosing: 800 mg easy (four 200 mg capsules) orally twice daily for 5 days

We have a patient with a positive covid-19 test, female, 17 years old and weighs 32 kg. Patient does not need increased oxygen. Patient is not pregnant. Patient has a history of chronic lung disease which puts him at high risk. The patient also has renal impairment. And the patient has access for administration for remdesivir.

Remdesivir Dosing: 5 mg/kg easy IV on day 1 followed by 2.5 mg/ kg IV once daily from day 2 to day 3

TABLE IV: (Continued)

We have a patient with a positive covid-19 test, female, 11 years old and weighs 32 kg. Patient is not hospitalized. Patient is not pregnant. Patient is at high risk for decompensation from Covid-19. And the patient has not received authorization for remdesivir.

Outpatient treatment options easy not authorized or recommended. Place in monitoring and supportive care only