

Oppgave: MED5600_STATION5_V16_ORD

Del 1:

Spørsmål 1:

Non-invasive prenatal testing (NIPT) may be used for prenatal screening for chromosomal abnormalities. Some propose that NIPT should be offered either together with, or instead of, combined ultrasound and blood sampling (CUB). Which of the following statements is not an argument for NIPT?

- NIPT reduces the need for invasive testing.
- NIPT has greater validity than CUB for chromosomal abnormalities.
- Unlike CUB, NIPT is a diagnostic test.

Svar:

Unlike CUB, NIPT is a diagnostic test.

Del 2:

Spørsmål 1:

Why is the decision to either continue or withdraw intensive care treatment for an extremely premature infant sometimes not only a purely medical decision, but an ethical dilemma? Which statement is incorrect?

- There is medical uncertainty about the infant's future level of functioning, yet a decision must be made.
- The decision does not involve judgments about the potential value or disvalue of a life with disability.
- Continued treatment may lead to large use of resources now and in the future.
- Health professionals and next of kin may disagree about appropriate treatment intensity.

Svar:

The decision does not involve judgments about the potential value or disvalue of a life with disability.

Del 3:

Spørsmål 1:

In the debate about the ethics of abortion some philosophers distinguish between "human beings" and "human persons". Briefly explain this distinction. (2-4 lines)

Svar:

Answer ("sensorveiledning"):

A human being is an individual that belongs to the human species; it is a human being in the purely biological sense. A human person is human also in the moral sense: it is a human being that is morally valuable and has moral rights.

The points mentioned above suffice for "full score" on this question (six points). Some additional information: the philosophers in question typically require attributes such as sentience, the ability to feel pain, and desire for continued life in order for a human being to qualify as a human person.

Oppgave: MED5600_STATION6_V16_ORD

Del 1:

Spørsmål 1:

Pharmacokinetics of drugs in children could be different from that of adults. Which two of the statements below are **false**?

- Infants (less than 1 year) have increased uptake of acid-labile drugs.
- In general, infants tend to display shorter half-lives for drugs than adults.
- In general, older children (>2 years) tend to display shorter half-lives for drugs than adults.
- The distribution volume of hydrophilic drugs is increased in newborn (< 3 months).
- The distribution volume of hydrophobic drugs is increased in 6-12 months old children.
- Glucuronidation of drugs in newborns, such as morphine, is very high.

Svar:

In general, infants tend to display shorter half-lives for drugs than adults.
Glucuronidation of drugs in newborns, such as morphine, is very high.

Del 2:

Spørsmål 1:

Drugs given to the mother can be found in breast milk. The main route of drug excretion in milk is through transcellular diffusion from the capillary to the milk. Please consider each statement:

Compared to the plasma concentration, the concentration in milk is therefore often: [nedtrekkmeny]
Compared to plasma, the half-life of drugs in the breast milk is: [nedtrekkmeny]

Svar:

Compared to the plasma concentration, the concentration in milk is therefore often
= **equal**
Compared to plasma, the half-life of drugs in the breast milk is
= **equal**

Del 3:

Spørsmål 1:

Which two of the statements about effects of progesterone are **false**?

- Modulates the endometrium to be suitable for implantation of fertilized ovum.
- Cervical mucosae becomes less viscous.
- Cervical mucosae becomes more less alkaline and less welcoming for sperm.
- Negative feedback on both GnRH and LH secretion.
- Increased motility of the myometrium
- Mammary glands: growth/development of glandular acini (requires estrogen-prepared epithelium).
- Weak and variable anabolic effects.
- Might increase LDL- and decrease HDL- levels.

Svar:

Cervical mucosae becomes less viscous.
Increased motility of the myometrium

Oppgave: MED5600_STATION7_V16_ORD

Del 1:

Nina is 32 years old. You are her GP. She experiences extreme pain on passing urine. By observation of her vulva, she says she can see spots all over. She has never had this kind of rash before.



Spørsmål 1:

What is the diagnosis?

- Severe attack of fungus
- Herpes simplex type I or II
- Genital warts

Svar:

Herpes simplex type I or II

Del 2:

Nina is 32 years old. You are her GP. She experiences extreme pain on passing urine. By observation of her vulva, she says she can see spots all over. She has never had this kind of rash before.

Just by inspecting her vulva, you easily diagnose it to be a primary genital herpes infection, and it could be either type I (50%) or II (50%). You decide not to do a full gynaecological examination, as it might be painful.

Spørsmål 1:

Which treatment would you NOT prescribe for her?

- Azithromycine 500mg x 1 for 3 days
- Acyclovir 200mg x 5 for 5-10 days
- Valacyclovir 500mg x 2 for 5-10 days

Svar:

Azithromycine 500mg x 1 for 3 days

Del 3:

Nina is 32 years old. You are her GP. She experiences extreme pain on passing urine. By observation of her vulva, she says she can see spots all over. She has never had this kind of rash before. Just by inspecting her vulva, you easily diagnose it to be a primary genital herpes infection, and it could be either type I (50%) or II (50%). You decide not to do a full gynaecological examination, as it might be painful.

You would not prescribe azithromycine. Herpes genitalis is a recurring condition.

Spørsmål 1:

Will it be contagious if there are no symptoms or visible vesicles?

- No, it is not contagious
- One has to use condoms for life
- Yes, it may be contagious
- The hormone IUD prevents new outbreaks

Svar:

Yes, it may be contagious

Del 4:

Nina is 32 years old. You are her GP. She experiences extreme pain on passing urine. By observation of her vulva, she says she can see spots all over. She has never had this kind of rash before. Just by inspecting her vulva, you easily diagnose it to be a primary genital herpes infection, and it could be either type I (50%) or II (50%). You decide not to do a full gynaecological examination, as it might be painful. You would not prescribe azithromycine. Herpes genitalis is a recurring condition.

It may be contagious even after healing, and virus may be present even if there are no visible lesions. Nina is 28 weeks pregnant when she gets her primary outbreak of genital herpes.

Spørsmål 1:

Which treatment should you NOT offer her?

- Valacyclovir 500mgx2 for 5-10 days
- Azithromycine 500 mgx 1 for 3 days
- Acyclovir 200mgx5 for 5-10 days

Svar:

Azithromycine 500 mgx 1 for 3 days

Del 5:

Nina is 32 years old. You are her GP. She experiences extreme pain on passing urine. By observation of her vulva, she says she can see spots all over. She has never had this kind of rash before. Just by inspecting her vulva, you easily diagnose it to be a primary genital herpes infection, and it could be either type I (50%) or II (50%). You decide not to do a full gynaecological examination, as it might be painful. You would not prescribe azithromycine. Herpes genitalis is a recurring condition. It may be contagious even after healing, and virus may be present even if there are no visible lesions. Nina is 28 weeks pregnant when she gets her primary outbreak of genital herpes.

Nina has had 4 outbreaks of herpes during the pregnancy after her primary outbreak in week 28, and was therefore referred to the hospital by her GP. She now has 10 days until her date of delivery.

From now on, please imagine that you are the doctor on call at the hospital seeing her at the outpatient clinic.

Spørsmål 1:

What should you do?

- Wait and see if she gets an outbreak.
- One dose of i.v. acyclovir during labour.
- Acyclovir 200mgx5 for 5-10 days prophylactically.

Svar:

Acyclovir 200mgx5 for 5-10 days prophylactically.

Del 6:

Nina is 32 years old. You are her GP. She experiences extreme pain on passing urine. By observation of her vulva, she says she can see spots all over. She has never had this kind of rash before. Just by inspecting her vulva, you easily diagnose it to be a primary genital herpes infection, and it could be either type I (50%) or II (50%). You decide not to do a full gynaecological examination, as it might be painful. You would not prescribe azithromycine. Herpes genitalis is a recurring condition. It may be contagious even after healing, and virus may be present even if there are no visible lesions. Nina is 28 weeks pregnant when she gets her primary outbreak of genital herpes. Nina has had 4 outbreaks of herpes during the pregnancy after her primary outbreak in week 28, and was therefore referred to the hospital by her GP, and she now has 10 days until her date of delivery. From now on, please imagine that you are the doctor on call at the hospital seeing her at the outpatient clinic.

You would have suggested that Nina started acyclovir prophylaxis. Nina is now in labour, and has a very painful herpes outbreak that started yesterday. Her contractions have lasted for 5 hours. As the doctor on call, you inform the paediatrician, and perform a caesarean section. The newborn child receives an Apgar score of 6, 7 and 8 (1, 5 and 10 minutes after delivery, respectively). During the next couple of minutes, the child appears a little more floppy and pale than usual, and the general condition seems slightly reduced.

Spørsmål 1:

What would be the most appropriate message to give to the parents?

- "The Apgar score is normal, and the child is therefore healthy. The child should be treated like any other newborns."
- "The Apgar score is not normal, and the child is therefore ill. The child should be transferred to the Neonatal intensive care unit".
- "The Apgar score is normal, but the child might still suffer from an infection. The child should be transferred to the Neonatal intensive care unit"

Svar:

"The Apgar score is normal, but the child might still suffer from an infection. The child should be transferred to the Neonatal intensive care unit"

Del 7:

Nina is 32 years old. You are her GP. She experiences extreme pain on passing urine. By observation of her vulva, she says she can see spots all over. She has never had this kind of rash before. Just by inspecting her vulva, you easily diagnose it to be a primary genital herpes infection, and it could be either type I (50%) or II (50%). You decide not to do a full gynaecological examination, as it might be painful. You would not prescribe azithromycine. Herpes genitalis is a recurring condition. It may be contagious even after healing, and virus may be present even if there are no visible lesions. Nina has had 4 outbreaks of herpes during the pregnancy after her primary outbreak in week 28, and was therefore referred to the hospital by her GP, and she now has 10 days until her date of delivery. From now on, please imagine that you are the doctor on call at the hospital seeing her at the outpatient clinic. You would have suggested that Nina started acyclovir prophylaxis. Nina is now in labour, and has a very painful herpes outbreak that started yesterday. Her contractions have lasted for 5 hours. As the doctor on call, you inform the paediatrician, and perform a caesarean section. The newborn child receives an Apgar score of 6, 7 and 8 (1, 5 and 10 minutes after delivery, respectively). During the next couple of minutes, the child appears a little more floppy and pale than usual, and the general condition seems slightly reduced.

It would be appropriate to tell the parents that the Apgar score is normal. However, the child might still suffer from an infection and should therefore be transferred to the Neonatal intensive care unit.

A more thorough clinical examination at the Neonatal intensive care unit 3 hours after birth reveals the following symptoms and signs:

- * Heart rate 180 beats/min during sleep
- * Respiratory rate 75 breaths/minutes, no recessions (in Norwegian: "Inndragninger").
- * Body temperature 36,1 °C
- * SaO₂ 96 %
- * Clearly hypotonic child lying in a frog position
- * A weak cry and reduced response to handling
- * No spontaneous sucking behavior when offered the mother's breast
- * No vesicles, but disseminated bluish, punctuated skin lesions as shown in the picture



Spørsmål 1:

Evaluate each of these symptoms and signs in relation to two differential diagnoses – encephalitis and septicaemia.

Disseminated bluish, punctuated skin lesions as shown in the picture. [nedtrekkmeny]

Heart rate 180 beats/min during sleep. [nedtrekkmeny]

Respiratory rate 75 breaths/minutes, no recessions (in Norwegian “Inndragninger”). [nedtrekkmeny]

Body temperature 36,1 °C. [nedtrekkmeny]

SaO₂ 96 % [nedtrekkmeny]

Clearly hypotonic child lying in a frog position. [nedtrekkmeny]

A weak cry and reduced response to handling. [nedtrekkmeny]

No spontaneous sucking behavior when offered the mother’s breast . [nedtrekkmeny]

Svar:

Disseminated bluish, punctuated skin lesions as shown in the picture. = **Favours septicaemia**

Heart rate 180 beats/min during sleep. = **Favours septicaemia**

Respiratory rate 75 breaths/minutes, no recessions (in Norwegian “Inndragninger”). = **Favours septicaemia**

Body temperature 36,1 °C. = **A normal finding**

SaO₂ 96 % = **A normal finding**

Clearly hypotonic child lying in a frog position. = **An important symptom/sign, but does not differentiate between encephalitis and septicaemia**

A weak cry and reduced response to handling. = **An important symptom/sign, but does not differentiate between encephalitis and septicaemia**

No spontaneous sucking behavior when offered the mother’s breast .

= **An important symptom/sign, but does not differentiate between encephalitis and septicaemia**

Del 8:

Nina is 32 years old. You are her GP. She experiences extreme pain on passing urine. By observation of her vulva, she says she can see spots all over. She has never had this kind of rash before. Just by inspecting her vulva, you easily diagnose it to be a primary genital herpes infection, and it could be either type I (50%) or II (50%). You decide not to do a full gynaecological examination, as it might be painful. You would not prescribe azithromycine. Herpes genitalis is a recurring condition. It may be contagious even after healing, and virus may be present even if there are no visible lesions. Nina has had 4 outbreaks of herpes during the pregnancy after her primary outbreak in week 28, and was therefore referred to the hospital by her GP, and she now has 10 days until her date of delivery. From now on, please imagine that you are the doctor on call at the hospital seeing her at the outpatient clinic. You would have suggested that Nina started acyclovir prophylaxis. Nina is now in labour, and has a very painful herpes outbreak that started yesterday. Her contractions have lasted for 5 hours. As the doctor on call, you inform the paediatrician, and perform a caesarean section. The newborn child receives an Apgar score of 6, 7 and 8 (1, 5 and 10 minutes after delivery, respectively). During the next couple of minutes, the child appears a little more floppy and pale than usual, and the general condition seems slightly reduced. It would be appropriate to tell the parents that the Apgar score is normal. However, the child might still suffer from an infection and should therefore be transferred to the Neonatal intensive care unit. A more thorough clinical examination at the Neonatal intensive care unit 3 hours after birth reveals the following symptoms and signs:

- * Heart rate 180 beats/min during sleep
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- * Body temperature 36,1 °C
- * SaO₂ 96 %
- * Clearly hypotonic child lying in a frog position
- * A weak cry and reduced response to handling
- * No spontaneous sucking behavior when offered the mother's breast
- * No vesicles, but disseminated bluish, punctuated skin lesions as shown in the picture

Skin lesions as shown in the picture, heart rate 180 beats/min and respiratory rate 75 breaths/minutes with no recessions are more likely in sepsis than in encephalitis. The remaining findings are normal or not of differential diagnostic value.

Spørsmål 1:

Which three additional investigations should be given highest priority during the next couple of hours?

- Lumbar puncture
- Blood culture
- Brain CT
- Chest X-ray
- Viral serology in blood
- Routine blood tests (including haematology, markers of infection and blood gas)
- Echocardiography
- ECG
- EEG

Svar:

Blood culture

Chest X-ray

Routine blood tests (including haematology, markers of infection and blood gas)