# Data Guideline National Immunization Program[[1]](#footnote-1)

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1. Message 1 and 2: request and receive vaccination status and vaccination advice

### Create a child record and send notification card

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| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data | Exceptions/explanation |
| 1. | Child is born |  |  | If applicable COA[[2]](#footnote-2) care-number en V-number[[3]](#footnote-3). | Illegal children and children from people who ask for asylum (no BSN[[4]](#footnote-4), illegal's no numbers and asylum seekers V-nummer  and / or COA care-number  Passed away  Not born in NL |
| 2. | Declaration of birth at the municipality |  |  | Name and address, Gender, Birthplace, Date of birth, Name and address of parents, Date of birth of parents, BSN of parents, Date of declaration, Nationality parents and child. | Children without declaration  Removals |
| 3. | Reading data GBA[[5]](#footnote-5) Praeventis[[6]](#footnote-6) and DD JGZ[[7]](#footnote-7) | x | x | GBA: Name and address child, Gender, Date of birth, BSN, Birthplace, Country of birth  COA:COA-Care-number, (BSN, V-number),  Name and address child, Gender, Date of birth, Nationality,  (COA data are being uploaded every week in Praeventis) | Data are also coming from maternity care, midwifes, parents, by fax from the municipality |
| 4. | Praeventis creates a record for the child and a total overview of administrated immunizations. |  | x |  | Settlers: Children that are logged on via GBA and an age older than 30 days, RCP will sent a welcome letter.  Parents are requested to indicate which immunizations the child already has received (abroad)and sent this back to RCP. RCP will process this into Praeventis, and this is used to determine  The immunization status of the child and to determine a further schedule.  Asylum seekers are getting a separate overview of administrated immunizations. |
| 5. | DD JGZ creates a record for the child | X |  |  |  |
| 6. | A set of calling cards are made until the age of 14 months.  This is sent to home address together with the vaccination certificate on the age of 4-5 weeks. In principle the same happens well before the age of 4, 9 and 11 years old. |  | x |  | Different address child  Child didn't receive a calling card yet after 6 weeks  Children who are 11 year olds will get the first two calling cards at the same time, the third one will be sent to them after 6 months year. |

### Workflow of individual immunization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data | Exceptions/explanation |
| 7. | The client brings the calling cards with them for the encounter at the JGZ organization. |  |  | Type of immunization, Name Address child, date of birth child, RCP client number, Address if RCP | Parents have objected to all the vaccination or against a single component |
| 8. | The YHC doctor/ nurse asks, if in doubt, for the overview of administrated immunizations (actual status)from Praeventis via DD JGZ and receives the appropriate calling card(s) | x |  | BSN child, Name, Date of birth, Name of applicant, YHC organization  Check if child got the immunization elsewhere | Brought no calling cards  COA child has no BSN, but a  COA-care number |
| 9. | YHC receives from Praeventis (after active request by the YHC organization) the overview of administrated immunizations | X |  | BSN child (or V-number), Name,  Date of birth, YHC-organization,  YHC-location, Vaccine, Date of administration,  Organization who administrated the vaccine,  Objection, Target date, minimal  execution date. |  |
| 10. | The YHC doctor/nurse/assistant rules out contra-indications for the administration of immunization.  If necessary a check for contra-indication at the medical advisor in the RCP (by telephone) | x |  | Registration of contra-indication in DD  JGZ |  |
| 11. | Then the doctor/nurse/assistant gets the the respective vaccine  From the refrigerator and selects the, to be given, type of vaccine from the screen and types in the lot number from the vaccine which enter the correct lot number quickly. | x |  | All valid lot numbers are send every day from Praeventis to the DD  JGZ, so that the YHC organization can select a lot number from the list.  The valid and to be used lot number is registered in the DD JGZ.  Any error when typing shall be identified by the DD JGZ. The chance to make mistakes while typing shall be strongly minimized and data shall be registered in a user friendly way. |  |
| 12. | YHC doctor/ nurse administer the vaccine on the previously agreed spot on the  body | X |  |  |  |
| 13. | YHZ clinician register in the DD JGZ the administrated immunization(s) | X |  | BSN child (or V-number), Name, Date of birth, Lot number, Type of  vaccine, Date of administration, YHC organization,  JGZ-location, Objection.  Registed immunizations are send to Preaventis between 10.00 pm and 2.00 am. | Sender of registration on CB level. |
| 14. | Praeventis reads the immunizations and adjust the overview with administrated immunizations of a child, formulates an individual advise on the further planning of the immunization and validates the type of vaccine according to the immunization scheme and the durability of the vaccine. |  | x |  |  |
| 15. | Praeventis generates a list with errors and particularities, this list is send to the responsible RCP.  The RCP send this list, if necessary, to the YHC contact person and discusses the measures to be taken |  | x |  |  |
| 16. | At the YHC organization the error will be restored or completed with the proper data. Also the RCP corrects the error in Praeventis and will complete the data. | x | x |  |  |

### Work process with mass vaccinations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data | Exceptions/explanation |
| 17. | Selection of cohort for every YHC organization based on agreements with the YHC organization and check of selection. |  | x |  |  |
| 18. | Create calling-cards or file (+ letter), send to home address or send to YHC organization (+ total amount passed to the YHC organization) |  | x |  | The call in for 9 year old children are sometimes send to the YHC organization with a file with bar codes per child. The YHC organization will call in the children. |
| 19. | Prepare and plan the immunization campaign, this includes: update of  script, dates, amount of clients,  necessary personnel, necessary material,  communication plan for client, YHC personnel, CJG[[8]](#footnote-8), Scheduling location manager | x |  |  |  |
| 20. | Call clients | x |  |  |  |
| 21. | Prepare location | x |  |  |  |
| 22. | Briefing employees: check for controleren op presence, instructions for performance and  communications | x |  |  |  |
| 23. | Performing of immunization: receive clients, prepare vaccination, register vaccination, administer vaccination, support clients to exit | x |  |  |  |
| 24. | YHC organization scans the calling card, the relevant module in the DD JGZ will open, one chooses the right type of vaccine and enters the lot number in the valid child record.  The DD JGZ will indicate if an error occurs. The chance for errors while typing shall be strongly mineralized and that data can be entered in a user friendly manner.  After this it is enough to enter the lot number for a specific child.  The doctor/ nurse administer the vaccine.  The administered vaccines are send to Preaventis (batch). | x |  | BSN child, Name, Date of birth,  Lot number vaccine, Product, Type of vaccine, Date of administration, YHC organization, (on CB-level), YHC location.  Name YHC-employee (applicant),  Lot number is entered one time, after that it stays the same. | For children without a BSN a different match shall be made when the barcode on the calling card is scanned. (reference to applicable law: family name, forenames, date of birth, postal code, house number.  If there is no calling card, the child shall be manually searched for in the DD JGZ system. Then the overview of the administrated immunizations can be checked and the child can have the immunization. |
| 25. | Closure: collect materials, log, clean up location. | X |  |  | Children who didn't show up can phone with the YHC organization for another appointment or are called in again next year. |
| 26. | Evaluation |  |  |  |  |
| 27. | Praeventis receives the administrated vaccination(s) and adjusts the overview of the administrated vaccinations for the child and checks for valid type of vaccine, according the vaccination scheme, durability vaccine. |  | x |  | Note: children without a BSN have a COA care-number, people who stays illegal in the Netherlands don't have a number. |
| 28. | Praeventis generates a list with errors and particularities, this list is send to the responsible RCP.  The RCP send this list, if necessary, to the YHC contact person and discusses the measures to be taken |  | x |  |  |
| 29. | At the YHC organization the error will be restored or completed with the proper data. Also the RCP corrects the error in Praeventis and will complete the data. |  | x |  |  |

### Client goes to another YHC organization for immunization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data | Exceptions/explanation |
| 7. | A client takes the calling card and the vaccination certificate to the other YHC organization. |  |  | Type of immunization, Name and address child,  Date of Birth child, Address RCP.  It is advisable always to ask  whether the child has had elsewhere  vaccinated.  YHC may also  Ask for the administered vaccinations and the latest situation. |  |
| 8. | The YHC doctor/ nurse creates an record for the child an register the (basic) information of the child. | x |  |  |  |
| 9. | The YHC doctor/ nurse asks, only if in doubt, the overview of administrated immunizations from Preaventis using the DD JGZ and takes the applicable calling cards. | x |  | BSN child, Name, Date of birth,  Name applicant, YHC organization | No calling cards  COA child has no BSN but a  COA-care number |
| 10. | YHC organization receives the overview of administered immunizations form Preaventis (after an active request of the YHC organization). | x |  | BSN child (or V-number), Name,  Date of birth, YHC-organization,  YHC-location, Vaccine, Date of administration,  Organization of administration,  Objection, Target date and minimal execution date. |  |
| 11. | The YHC doctor/nurse/assistant rules out contraindications for the relevant immunization.  If necessary check contraindication with  medical advisor RCP (by phone) | x |  |  | Registration of contraindications in DD JGZ. |
| 12. | Then the doctor/nurse/assistant takes the concerning vaccine from the refrigerator and selects the type of immunization from the screen and registers the lot number of the ampoule. | x |  |  |  |
| 13. | Doctor/nurse administer the vaccine on the previously agreed spot on the Body. | x |  |  |  |
| 14. | YHC employee confirms in the DD JGZ the administrated immunization(s) of the concerning child. | x |  | BSN child (or V-number), Name,  Date of birth, Lot number, Type of vaccine, Date of administration, YHC organization, YHC location, Objection. |  |
| 15. | Praeventis includes immunization(s) and adjust the overview of administrated immunizations of the child and checks these for valid type of vaccine, according to immunization scheme and sustainability vaccine. |  | x | The registered immunizations are send, in a batch, to Preaventis at 10.00 pm. |  |
| 16. | Praeventis generates a list with errors and particularities, this list is send to the responsible RCP.  The RCP send this list, if necessary, to the YHC contact person and discusses the measures to be taken. |  | x |  |  |
| 17. | At the YHC organization the error will be restored or completed with the proper data. Also the RCP corrects the error in Praeventis and will complete the data. | x | x |  |  |

### Client comes back for consultation (and / or vaccination) with regular YHC organization (vaccination was previously administered by other YHC organization)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data |  |
| 7. | A client comes for a regular consultation (and/or vaccination) at own YHC organization. |  |  | Type of immunization, Name and address child, Date of birth child, Address RCP.  It is advisable always to ask, if the child is not in care at the YHC organization, to ask if the child is vaccinated elsewhere and to request the overview of administrated immunizations for the actual status. |  |
| 8. | Then the doctor/nurse execute the consultation, confirms that the immunization is administrated elsewhere and request the overview of administrated immunizations at Preaventis using the DD JGZ. | **x** |  | BSN child, Name, Date of birth, applicant, YHC organization |  |
| 9. | YHC organization receives from Preaventis (after an active request from the YHC organization) the overview of the administrated immunizations and this is saved in the DD JGZ of the child. | **x** |  | BSN child (or V-number), Name,  Date of birth, YHC-organization,  YHC-location, Vaccine, Date of administration,  Organization of administration,  Objection, Targetdate, and minimal execution date. |  |

### Use cases

**Individual immunization**

Today Eveline de Waard and her son Joris Petersen come for the eight time at the YHC organization. Joris has almost reached the age of one year and today he will get his immunizations for the fourth time.

For this Eveline has brought the calling card with the BSN of Joris en zijn vaccine certificate. For the consultation Joris is forst stripped of his clothes. The assistant determine his body weight, body lenght and, for the last time his head circumference. She register all values in the electronic record (DD JGZ) which Joris has from the time he was born.

After a few minutes Joris and his mother are called in by Marike the nurse. she welcomes them. She looks in the DD JGZ and reviews Joris his growth and askes how Joris is doing. According to Joris his mother he had a severe cold, but that he is fully recovered. After discussing all questions from Eveline and Marieke has reviewed the development of Joris Marieke tells them that she is about to give the immunizations. she asked Eveline if she brought the immunization certificate and Eveline gives the certificate.

**Message 1 request for overview administered immunizations**

In the DD JGZ Marieke checks if there are any objections against the immunizations or parts of that. She asks Eveline if she went to another YHC organization because of her long stay at her mothers. Eveline tells that she went there to measure Joris his body weight.

To be sure, Marieke requests the immunization status of Joris at RIVM/RCP. Immediately the last status is presented on her screen (message 2). She sees that Joris has already got three immunizations and that this happened more than 6 months ago. Furthermore she notices that the fourth immunization can be given today because the minimal execution date is expired. In the DD JGZ, in the overview of symptoms of the previous vaccinations, she noticed that after the second immunization Joris had fever and a stiff leg. Marieke asks Eveline if there are reasons not to vaccinate Joris today. The cold is gone and Joris is recovered from that. Marieke takes the concerning vaccine from the refrigerator en checks this for valid vaccine, expiration date and color.

**Mass vaccination**

It is Wednesday afternoon and very bussy at the GGD. Today the 9 year old children will get their immunization for DTP and BMR. There parents received an invitation for this and to bring the vaccination certificate and the calling card (with BSN).

Also the GGD has done preparations: they updated the script, listed the amount of expected clients delivered by the RIVM, the necessary personnel available for this afternoon, the necessary material collected and prepared the location. Short before the event a briefing of personnel takes place: they get instructions on the execution of the immunization and the communication. One by one the clients are seen.

**Message 1 request for overview administered immunizations**

Some of the parents forgot to bring the calling card. They are referred to another table. There the assistant request the DD JGZ of the child and, with just one press on a button, requests the immunization status at Preaventis. In this way she knows if the immunizations can be given today. If the DD JGZ is not available, for what reason, she had to call the RIVM/RCP to ask for the immunization status.

1. Message 3 and 4: sending batch numbers to electronic Child Record (DD JGZ) and send administered vaccinations to RIVM

### Create a child record and send notification card

| Nr. | Desirable | JGZ | RCP | Data | Exceptions/explanation |
| --- | --- | --- | --- | --- | --- |
| 1. | Child is born |  |  | If applicable COA[[9]](#footnote-9) care-number en V-number[[10]](#footnote-10). | Illegal children and children from people who ask for asylum (no BSN[[11]](#footnote-11), illegal's no numbers and asylum seekers V-number  and / or COA care-number  Passed away  Not born in NL |
| 2. | Declaration of birth at the municipality |  |  | Name and address, Gender, Birthplace, Date of birth, Name and address of parents, Date of birth of parents, BSN of parents, Date of declaration, Nationality parents and child. | Children without declaration  Removals |
| 3. | Reading data GBA[[12]](#footnote-12) Praeventis[[13]](#footnote-13) and DD JGZ[[14]](#footnote-14) | x | x | GBA: Name and address child, Gender, Date of birth, BSN, Birthplace, Country of birth  COA:COA-Care-number, (BSN, V-number),  Name and address child, Gender, Date of birth, Nationality,  (COA data are being uploaded every week in Praeventis) | Data are also coming from maternity care, midwifes, parents, by fax from the municipality |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 4. | Praeventis creates a record for the child and a total overview of administrated immunizations. |  | x |  | Settlers: Children that are logged on via GBA and an age older than 30 days, RCP will sent a welcome letter.  Parents are requested to indicate which immunizations the child already has received (abroad)and sent this back to RCP. RCP will process this into Praeventis, and this is used to determine the vaccination status and to the immunization status of the child and to determine a further schedule. If parents don't respond to this (within a reasonable time) the common Dutch vaccination scheme is used.  Asylum seekers are getting a separate overview of administrated immunizations. This will be processed in Praeventis. |
| 5. | DD JGZ creates a record for the child | x |  |  |  |
| 6. | A set of calling cards are made until the age of 14 months.  This is sent to home address together with the vaccination certificate on the age of 4-5 weeks. In principle the same happens well before the age of 4, 9 and 11 years old. |  | x |  | Different address child  Child didn't receive a calling card yet after 6 weeks  Children who are 11 year olds will get the first two calling cards at the same time, the third one will be sent to them after 6 months year. |

### Workflow of individual immunization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data | Exceptions/explanation |
| 7. | The client brings the calling cards with them for the encounter at the JGZ organization. |  |  | Type of immunization, Name Address child, date of birth child, RCP client number, Address if RCP | Parents have objected to all the vaccination or against a single component |
| 8. | The YHC doctor/ nurse reviews the planned vaccinations in the DD JGZ, according to the overview of administrated vaccinations, and  receives the appropriate calling card(s). | x |  |  |  |
| 9. | The YHC doctor/nurse/assistant rules out contra-indications for the administration of immunization.  If necessary a check for contra-indication at the medical advisor in the RCP (by telephone) | x |  | Registration of contra-indication in DD  JGZ |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 10. | Then the doctor/nurse/assistant gets the respective vaccine from the refrigerator and selects the, to be given, type of vaccine from the screen and types in the lot number from the vaccine which enter the correct lot number quickly. | x |  | All valid lot numbers are send every day from Praeventis to the DD  JGZ, so that the YHC organization can select a lot number from the list.  The valid and to be used lot number is registered in the DD JGZ.  Any error when typing shall be identified by the DD JGZ. The chance to make mistakes while typing shall be strongly minimized and data shall be registered in a user friendly way. |  |
| 12. | YHC doctor/ nurse administer the vaccine on the previously agreed spot on the  body | X |  |  |  |
| 13. | YHZ clinician register in the DD JGZ the administrated immunization(s) | X |  | BSN child (or V-number), Name, Date of birth, Lot number, Type of  vaccine, Date of administration, YHC organization,  JGZ-location, Objection.  Registed immunizations are send to Preaventis between 10.00 pm and 2.00 am. | Sender of registration on CB level.  For children without a BSN (especially children without a residence permit  and children of asylum seekers, children not born in the Netherlands or children without declaration) the filled in calling cart is send back to the RIVM, so the administrated vaccines can be manually entered. |
| 14. | Praeventis reads the immunizations and adjust the overview with administrated immunizations of a child, formulates an individual advise on the further planning of the immunization and validates the type of vaccine according to the immunization scheme and the durability of the vaccine. |  | x |  |  |
| 15. | Praeventis generates a list with errors and particularities, this list is send to the responsible RCP.  The RCP send this list, if necessary, to the YHC contact person and discusses the measures to be taken |  | x |  |  |
| 16. | At the YHC organization the error will be restored or completed with the proper data. Also the RCP corrects the error in Praeventis and will complete the data. | x | x |  |  |

### Work process with mass vaccinations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data | Exceptions/explanation |
| 17. | Selection of cohort for every YHC organization based on agreements with the YHC organization and check of selection. |  | x |  |  |
| 18. | Create calling-cards or file (+ letter), send to home address or send to YHC organization (+ total amount passed to the YHC organization) |  | x |  | The call in for 9 year old children are sometimes send to the YHC organization with a file with bar codes per child. The YHC organization will call in the children. |
| 19. | Prepare and plan the immunization campaign, this includes: update of  script, dates, amount of clients,  necessary personnel, necessary material,  communication plan for client, YHC personnel, CJG[[15]](#footnote-15), Scheduling location manager | x |  |  |  |
| 20. | Call clients | x |  |  |  |
| 21. | Prepare location | x |  |  |  |
| 22. | Briefing employees: check for presence, instructions for performance and  communications | x |  |  |  |
| 23. | Performing of immunization: receive clients, prepare vaccination, register vaccination, administer vaccination, support clients to exit | x |  |  |  |
| 24. | YHC organization scans the calling card, the relevant module in the DD JGZ will open, one chooses the right type of vaccine and enters the lot number in the valid child record.  After the registration, for the next children it is sufficient to present the relevant lot number. The doctor/ nurse administer the vaccine.  The administered vaccines are send to Preaventis (batch). | x |  | BSN child, Name, Date of birth,  Lot number vaccine, Product, Type of vaccine, Date of administration, YHC organization, (on CB-level), YHC location.  Name YHC-employee (applicant),  Lot number is entered one time, after that it stays the same. | For children without a BSN a different match shall be made when the barcode on the calling card is scanned. (reference to applicable law: family name, forenames, date of birth, postal code, house number.  If there is no calling card, the child shall be manually searched for in the DD JGZ system. Then the overview of the administrated immunizations can be checked and the child can have the immunization. |
| 25. | Closure: collect materials, log, clean up location. | X |  |  | Children who didn't show up can phone with the YHC organization for another appointment or are called in again next year. |
| 26. | Evaluation |  |  |  |  |
| 27. | Praeventis receives the administrated vaccination(s) and adjusts the overview of the administrated vaccinations for the child and checks for valid type of vaccine, according the vaccination scheme, durability vaccine. |  | x |  | Note: children without a BSN have a COA care-number, people who stays illegal in the Netherlands don't have a number. |
| 28. | Praeventis generates a list with errors and particularities, this list is send to the responsible RCP.  The RCP send this list, if necessary, to the YHC contact person and discusses the measures to be taken |  | x |  |  |
| 29. | At the YHC organization the error will be restored or completed with the proper data. Also the RCP corrects the error in Praeventis and will complete the data. |  | x |  |  |

### Client goes to another YHC organization for immunization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data | Exceptions/explanation |
| 7. | A client takes the calling card and the vaccination certificate to the other YHC organization. |  |  | Type of immunization, Name and address child,  Date of Birth child, Address RCP.  It is advisable always to ask  whether the child has had elsewhere  vaccinated. |  |
| 8. | The YHC doctor/ nurse creates an record for the child an register the (basic) information of the child. | x |  |  |  |
| 9. | The YHC doctor/nurse/assistant rules out contraindications for the relevant immunization.  If necessary check contraindication with  medical advisor RCP (by phone) | x |  |  |  |
| 10. | Then the doctor/nurse/assistant takes the concerning vaccine from the refrigerator and selects the type of immunization from the screen and registers the lot number of the ampoule. | x |  |  |  |
| 11. | Doctor/nurse administer the vaccine on the previously agreed spot on the Body. | x |  |  |  |
| 12. | YHC employee confirms in the DD JGZ the administrated immunization(s) of the concerning child. | x |  | BSN child (or V-number), Name,  Date of birth, Lot number, Type of vaccine, Date of administration, YHC organization, YHC location, Objection. | For children without a BSN (especially children without a residence permit  and children of asylum seekers, children not born in the Netherlands or children without declaration) the filled in calling cart is send back to the RIVM, so the administrated vaccines can be manually entered. |
| 13. | Praeventis includes immunization(s) and adjust the overview of administrated immunizations of the child and checks these for valid type of vaccine, according to immunization scheme and sustainability vaccine. |  | x | The registered immunizations are send, in a batch, to Preaventis at 10.00 pm. |  |
| 14. | Praeventis generates a list with errors and particularities, this list is send to the responsible RCP.  The RCP send this list, if necessary, to the YHC contact person and discusses the measures to be taken. |  | x |  |  |
| 15. | At the YHC organization the error will be restored or completed with the proper data. Also the RCP corrects the error in Praeventis and will complete the data. | x | x |  |  |

### Client comes back for consultation (and / or vaccination) with regular YHC organization (vaccination was previously administered by other YHC organization)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nr. | Desirable | JGZ | RCP | Data |  |
| 7. | A client comes for a regular consultation (and/or vaccination) at own YHC organization. |  |  | Type of immunization, Name and address child, Date of birth child, Address RCP. |  |
| 8. | Then the doctor/nurse execute the consultation, confirms that the immunization is administrated elsewhere and request, when relevant, the overview of already administrated immunizations at Preaventis using the DD JGZ or by telephone. | **x** |  |  |  |
| 9. | The doctor/nurse of the YHC organization execute the consultation and administer the vaccine. | **x** |  |  |  |

### Use cases

Today Eveline de Waard and her son Joris Petersen come for the eight time at the YHC organization. Joris has almost reached the age of one year and today he will get his immunizations for the fourth time.

For this Eveline has brought the calling card with the BSN of Joris en zijn vaccine certificate. For the consultation Joris is forst stripped of his clothes. The assistant determine his body weight, body lenght and, for the last time his head circumference. She register all values in the electronic record (DD JGZ) which Joris has from the time he was born.

After a few minutes Joris and his mother are called in by Marike the nurse. she welcomes them. She looks in the DD JGZ and reviews Joris his growth and askes how Joris is doing. According to Joris his mother he had a severe cold, but that he is fully recovered. After discussing all questions from Eveline and Marieke has reviewed the development of Joris Marieke tells them that she is about to give the immunizations. she asked Eveline if she brought the immunization certificate and Eveline gives the certificate.

**Message 1 request for overview administered immunizations**

In the DD JGZ Marieke checks if there are any objections against the immunizations or parts of that. She asks Eveline if she went to another YHC organization because of her long stay at her mothers. Eveline tells that she went there to measure Joris his body weight.

To be sure, Marieke requests the immunization status of Joris at RIVM/RCP. Immediately the last status is presented on her screen (message 2). She sees that Joris has already got three immunizations and that this happened more than 6 months ago. Furthermore she notices that the fourth immunization can be given today because the minimal execution date is expired. In the DD JGZ, in the overview of symptoms of the previous vaccinations, she noticed that after the second immunization Joris had fever and a stiff leg. Marieke asks Eveline if there are reasons not to vaccinate Joris today. The cold is gone and Joris is recovered from that. Marieke takes the concerning vaccine from the refrigerator en checks this for valid vaccine, expiration date and color.

**Message 4 send administered vaccines**

**Individual vaccination**

Marieke prepares the vaccines and Joris is sitting on his mother's lap when he gets his vaccine on the agreed spot in both legs.

He cries for a moment, but is quickly comforted by his mother.

Back in the DD JGZ she selects the administered type of vaccine from the screen, DKTP-HiB and Pneumococcen and types in the lot numbers from the ampoule.

She checks if she has registered this in the right way and presses the ok button, so the registration is a fact and the batch is ready to be send to Praeventis in the evening.

Marieke register the date of the administered vaccinations on the vaccination certificate of Joris.

Marieke tells the mother of Joris which complains can occur. After that Eveline and Joris say goodbye to Marieke.

**Mass vaccination**

It is Wednesday afternoon and very busy at the GGD organization. Today the nine year old children are in for the vaccination of DTP and BMR.

Their parents received an invitation to come to the GGD for vaccination and to bring the vaccination certificate and the calling cart (with BSN) of the child.

The GGD organization prepared the mass vaccination: update of the script, the amount of expected clients, send by the RIVM in a list, the amount of personnel that is needed, the material that is needed and prepared the location.

Short for the vaccination session the employees are briefed: they get instructions relevant for the vaccinations to be administered and the communication.

The clients are received one by one.

**Send administrated vaccinations (mass vaccination)**

The assistant scans the calling cards with BSN number and the registration module appears with the right screen for the registration of the vaccinations. She register the vaccinations, which will be administered that afternoon. With the help of the module the date of the vaccination and the lot numbers which will be used are prepared. She checks if the registration was ok, so the registration is a fact and is ready in a batch for sending this to Praeventis in the evening.

In the vaccination certificate of the child the date and the administered vaccine are registered.

After all the children has get their vaccinations, all the materials are collected, the log is filled in and the locations is cleaned.

As a closure the employees evaluate the afternoon.

1. Nederlands Centrum Jeugdgezondheidszorg (NCJ), Rijksinstituut voor Volksgezondheid en Millieu (RIVM), 2013. RIVM-RCP Gegevensrichtlijn Rijksvaccinatieprogramma Berichten 1 en 2: opvragen vaccinatiestatus en ontvangen vaccinatiestatus en vaccinatieadvies. [↑](#footnote-ref-1)
2. For the use of healthcare in the Netherlands Asylum seekers need a COA care-number to have the right for healthcare. [↑](#footnote-ref-2)
3. V-number is a number for people who ask for asylum in the Netherlands. [↑](#footnote-ref-3)
4. BSN, Burger Servicenummer = unique identifier for a Dutch citizen. [↑](#footnote-ref-4)
5. GBA: a national registry with specific data of all Dutch citizens. [↑](#footnote-ref-5)
6. Praeventisis the information system of RIVM/RCP (National Institute for Health and environment/ Regional Coordination Programs. [↑](#footnote-ref-6)
7. DD JGZ is the electronic child record in Youth Health Care (JGZ, Jeugdgezondheidszorg). [↑](#footnote-ref-7)
8. CJG is Centrum Jeugd en Gezin/ youth and family center [↑](#footnote-ref-8)
9. For the use of healthcare in the Netherlands Asylum seekers need a COA care-number to have the right for healthcare. [↑](#footnote-ref-9)
10. V-number is a number for people who ask for asylum in the Netherlands. [↑](#footnote-ref-10)
11. BSN, Burger Servicenummer = unique identifier for a Dutch citizen. [↑](#footnote-ref-11)
12. GBA: a national registry with specific data of all Dutch citizens. [↑](#footnote-ref-12)
13. Praeventisis the information system of RIVM/RCP (National Institute for Health and environment/ Regional Coordination Programs. [↑](#footnote-ref-13)
14. DD JGZ is the electronic child record in Youth Health Care (JGZ, Jeugdgezondheidszorg). [↑](#footnote-ref-14)
15. CJG is Centrum Jeugd en Gezin/ youth and family center [↑](#footnote-ref-15)