



# Storage And Cold Chain of Vaccines



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- To ensure the efficacy and quality of vaccines, they must be handled properly during transportation and storage
- If vaccines are stored and handled incorrectly, they will lose some or all of their effectiveness
- The sensitivity of vaccines to heat and light varies with different vaccines
- If a vaccine is frozen, it will lose all or part of its effectiveness, and you cannot use it at all
- Only a properly stored vaccine is effective



# Main Facts of Vaccine Storage (1/3)

- The correct temperature for transportation and storage of vaccines is +2 - +8 C
- Monitor and record the temperature of the refrigerator every day to ensure proper storage conditions for vaccines
- The refrigerator in which vaccines are stored should have a minimum to maximum thermometer



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| Päiväys | Lämpötila |       | Kuittaus | Kommentti | Päiväys | Lämpötila |       | Kuittaus | Kommentti |
|---------|-----------|-------|----------|-----------|---------|-----------|-------|----------|-----------|
|         | Min.      | Maks. |          |           |         | Min.      | Maks. |          |           |
| 1       | 6.1       | 6.4   | EH       |           | 1       | 7.3       | 7.7   | EH       |           |
| 2       |           |       |          |           | 2       |           |       |          |           |
| 3       | 6.1       | 6.3   | PT       |           | 3       | 7.2       | 7.8   | PT       |           |
| 4       | 6.1       | 6.3   | EH       |           | 4       | 7.7       | 7.8   | EH       |           |
| 5       |           |       |          |           | 5       |           |       |          |           |
| 6       |           |       |          |           | 6       |           |       |          |           |
| 7       | 6.0       | 6.3   | PT       |           | 7       | 7.0       | 7.3   | PT       |           |
| 8       |           |       |          |           | 8       |           |       |          |           |
| 9       | 6.1       | 6.5   | KR       |           | 9       | 7.0       | 7.7   | KR       |           |
| 10      |           |       |          |           | 10      |           |       |          |           |
| 11      |           |       |          |           | 11      |           |       |          |           |

# Main Facts of Vaccine Storage (2/3)

- Make sure that vaccines are stored properly in a refrigerator
- Store the vaccines on the center shelves of the refrigerator, off the back wall (and off the boxes in the door)
- Vaccine packages must not be placed too tightly on the shelves to allow air to circulate and heat to be evenly distributed



# Main Facts of Vaccine Storage (3/3)

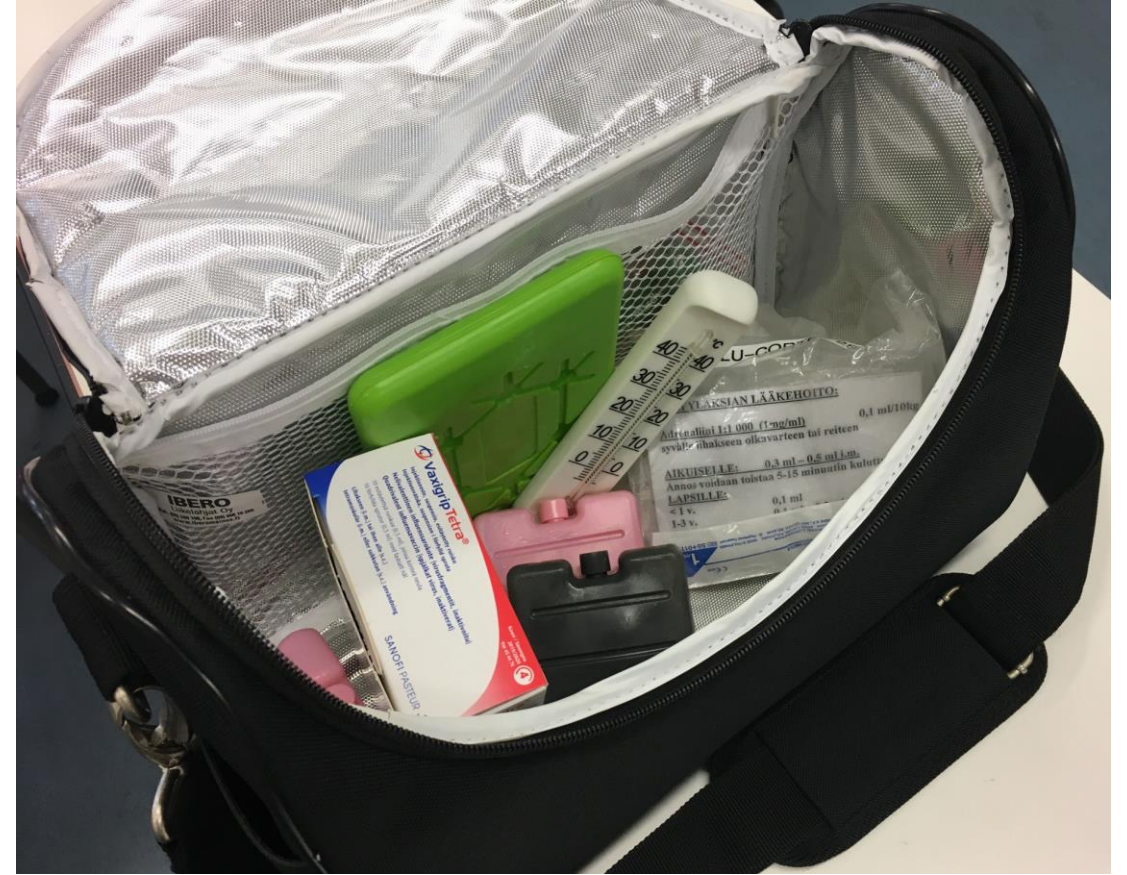
- Arrange vaccine packages so that those with shorter expiry dates are placed at the front and used first
- Make sure that the vaccines are not exposed to sunlight or bright light for too long
- Defrost the refrigerator regularly if it does not have an automatic defrosting system



# What Is a Cold Chain?



- The "cold chain" is a term used to describe the cold temperature conditions in which certain products need to be kept during storage and distribution (Green Book)
- The aim of the cold chain is to ensure that vaccines are transported and stored at the right temperature (+2 - + 8 C) until the point of vaccine administration



# Cold Chain



- Everyone is responsible for maintaining the cold chain of the vaccine
- Vaccines should be transported in validated cool boxes and cool packs
- During transportation, cool boxes should be equipped with refrigerator coolers
- Cool packs should be stored in a refrigerator, not in a freezer compartment
- Cool packs must not come into contact with vaccine packages
- Remember: a frozen or warmed vaccine should not be used



# References



- Government UK. The Green book. Chapter 3. Storage, distribution and disposal of vaccines. <https://www.gov.uk/government/publications/storage-distribution-and-disposal-of-vaccines-the-green-book-chapter-3>







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