

# Standard Operating Procedure Fridge and Clinical Room Temperature Monitoring for Safe Storage of Medicine

| Version:                                  | 4   |
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| Ratified by:                              | Senior Pharmacy Manager's Group   |
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# Version Control Summary

| Version | Date     | Author                             | Status                                      | Comment   |
|---------|----------|------------------------------------|---|---|
| 1       | 01/07/10 | Shameem Mir                        | Chief Pharmacist                            |   |
| 2       | 02/11/12 | Reviewed by Rachel Stevens         | Chief Technician<br>Medicines<br>Management | Review – no<br>changes  |
| 3       | 11/10/13 | Reviewed by<br>Louise Missen       | Clinical<br>Pharmacist                      | Fridge monitoring removed from 3 monthly pharmacy CD audit.  Added info about checking for expired/unneeded fridge medication |
| 4       | 06/02/15 | Reviewed by<br>Andrea<br>Okoloekwe | Lead Pharmacist,<br>Newham                  | Addition of clinical room temperature monitoring to SOP   |

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| The senior nurse is responsible for ensuring that all medicines within his/her clinical area are stored in the appropriate conditions.  The ward must have one trained individual with at least one trained deputy, responsible for the recording and monitoring of the ward environment.  **Monitor the temperature in the fridge and clinical room using a maximum-minimum thermomete once a day on every working day.  **Monitor the temperature in the fridge and clinical room using a maximum-minimum thermomete once a day on every working day.  **Advice on how to use the thermometer can be obtained from the supplier  **Record the actual, minimum and maximum temperatures on the recording chart (attached).  **Sign the fridge and clinical room chart with name as well as signature and record on the chart that the thermometer has been reset.  **The record should be readily accessible for easy reference and retained until the next audit Temperature charts must be stored for a minimum of 2 years.  **Temperature chart monitoring will be audited as part of the Trust audit cycle.  **The fridge should be defrosted (in on automatically defrosting) and cleaned once a month. This should be documented on the recording chart.  **If the fridge temperature is distile the range of 2 – 8°C first reset thermometer then check minimum thirty minutes later. If still outside the recommended range, quarantine the medicines and contact pharmacy for advice.  **If the clinical room temperature is above 25°C first reset thermometer then re-check. If temperature still remains above 25°C for 7 consecutive days then report to pharmacy for an estimate on reduction in shelf life of medicines.  **Known risks**  **Known risks**  **Specialised refrigerators are available for storage of pharmaceutical products, and must be used.  **Opening of the refrigerator do no hould be kept to a minimum.**  **The accidental interruption of the electricity supply can be prevented by using a switchless socket on by placing cautionary notices on plugs and sockets.  **Refrigerat | Purpose        | To ensure that medicines stored in fridge and in clinical rooms are at the appropriate temperature so that   |
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| <ul> <li>Refrigerators should not be situated near a radiator or any heat source that could affect their working and should be appropriately ventilated.</li> <li>Ice should not be allowed to build up within the refrigerator as this reduces effectiveness. Records should be kept of regular servicing, defrosting and cleaning.</li> <li>An approved cool box or alternative refrigerator should be used to store medicines during defrosting of the main refrigerator. After defrosting, medicines should only be replaced once the refrigerator has returned to the correct temperature.</li> <li>Digital thermometers are the most reliable and easiest to read.         Sufficient space should be allowed in the refrigerator so that air can circulate freely. Over-packed refrigerators lead to poor air flow, potential freezing and poor stock rotation.         Stocks should be stored within the refrigerator so that those with shorter expiry dates are used first.         Medicines must be kept in their original packaging when stored so that they retain information or batch numbers and expiry dates. The packaging is also part of the protection against light and changes in temperature.         Medicines must not be stored in the door, in the bottom drawers, or adjacent to the freezer plate of the refrigerator. If there are temperature variations outside of the recommended +2C° to +8°C (a range, they usually occur in these parts of the refrigerator.     </li> <li>Medicines which belong to patients which have been discharged or transferred off of the wards should be returned to Pharmacy for safe destruction as soon as possible as part of good medicine safety practice.</li> <li>Order via thermometer.co.uk/.</li> </ul>  |                | The accidental interruption of the electricity supply can be prevented by using a switchless socket or   |
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| of the main refrigerator. After defrosting, medicines should only be replaced once the refrigerator has returned to the correct temperature.  • Digital thermometers are the most reliable and easiest to read.  Sufficient space should be allowed in the refrigerator so that air can circulate freely. Over-packed refrigerators lead to poor air flow, potential freezing and poor stock rotation.  • Stocks should be stored within the refrigerator so that those with shorter expiry dates are used first.  • Medicines must be kept in their original packaging when stored so that they retain information or batch numbers and expiry dates. The packaging is also part of the protection against light and changes in temperature.  • Medicines must not be stored in the door, in the bottom drawers, or adjacent to the freezer plate of the refrigerator. If there are temperature variations outside of the recommended +2C° to +8°C C range, they usually occur in these parts of the refrigerator.  • Medicines which belong to patients which have been discharged or transferred off of the wards should be returned to Pharmacy for safe destruction as soon as possible as part of good medicine safety practice.  • Order via thermometer.co.uk/.  |                | • Ice should not be allowed to build up within the refrigerator as this reduces effectiveness. Records should be kept of regular servicing, defrosting and cleaning.   |
| Sufficient space should be allowed in the refrigerator so that air can circulate freely. Over-packed refrigerators lead to poor air flow, potential freezing and poor stock rotation.  Stocks should be stored within the refrigerator so that those with shorter expiry dates are used first.  Medicines must be kept in their original packaging when stored so that they retain information or batch numbers and expiry dates. The packaging is also part of the protection against light and changes in temperature.  Medicines must not be stored in the door, in the bottom drawers, or adjacent to the freezer plate of the refrigerator. If there are temperature variations outside of the recommended +2C° to +8°C Consequence of the refrigerator.  Medicines which belong to patients which have been discharged or transferred off of the wards should be returned to Pharmacy for safe destruction as soon as possible as part of good medicine safety practice.  Order via thermometer.co.uk  http://thermometer.co.uk/.  |                | <ul> <li>An approved cool box or alternative refrigerator should be used to store medicines during defrosting of the main refrigerator. After defrosting, medicines should only be replaced once the refrigerator has returned to the correct temperature.</li> </ul>  |
| <ul> <li>Stocks should be stored within the refrigerator so that those with shorter expiry dates are used first.</li> <li>Medicines must be kept in their original packaging when stored so that they retain information or batch numbers and expiry dates. The packaging is also part of the protection against light and changes in temperature.</li> <li>Medicines must not be stored in the door, in the bottom drawers, or adjacent to the freezer plate of the refrigerator. If there are temperature variations outside of the recommended +2C° to +8°C Contraction transferred off of the wards should be returned to Pharmacy for safe destruction as soon as possible as part of good medicine safety practice.</li> <li>Order via thermometer.co.uk</li> <li>http://thermometer.co.uk/.</li> </ul>  |                | • Digital thermometers are the most reliable and easiest to read.  Sufficient space should be allowed in the refrigerator so that air can circulate freely. Over-packed  |
| <ul> <li>Medicines must be kept in their original packaging when stored so that they retain information or batch numbers and expiry dates. The packaging is also part of the protection against light and changes in temperature.</li> <li>Medicines must not be stored in the door, in the bottom drawers, or adjacent to the freezer plate of the refrigerator. If there are temperature variations outside of the recommended +2C° to +8°C (range, they usually occur in these parts of the refrigerator.</li> <li>Medicines which belong to patients which have been discharged or transferred off of the wards should be returned to Pharmacy for safe destruction as soon as possible as part of good medicine safety practice.</li> <li>Order via thermometer.co.uk</li> <li><a href="http://thermometer.co.uk/">http://thermometer.co.uk/</a>.</li> </ul>  |                |  |
| <ul> <li>Medicines must not be stored in the door, in the bottom drawers, or adjacent to the freezer plate of the refrigerator. If there are temperature variations outside of the recommended +2C° to +8°C of range, they usually occur in these parts of the refrigerator.</li> <li>Medicines which belong to patients which have been discharged or transferred off of the wards should be returned to Pharmacy for safe destruction as soon as possible as part of good medicine safety practice.</li> <li>Order via thermometer.co.uk</li> <li><a href="http://thermometer.co.uk/">http://thermometer.co.uk/</a>.</li> </ul>  |                |  |
| range, they usually occur in these parts of the refrigerator.  • Medicines which belong to patients which have been discharged or transferred off of the wards should be returned to Pharmacy for safe destruction as soon as possible as part of good medicine safety practice.  • Order via thermometer.co.uk • <a href="http://thermometer.co.uk/">http://thermometer.co.uk/</a> .  |                | Medicines must not be stored in the door, in the bottom drawers, or adjacent to the freezer plate of   |
| practice.  Order via thermometer.co.uk  http://thermometer.co.uk/.   |                | Medicines which belong to patients which have been discharged or transferred off of the wards should   |
| How to order • <a href="http://thermometer.co.uk/">http://thermometer.co.uk/</a> .   |                | practice.  |
| ittp://thermometer.co.day.   | How to order   |  |
| thermometer: <a href="http://tnermometer.co.uk/industrial-tnermometers/1066-digital-max-min">http://tnermometer.co.uk/industrial-tnermometers/1066-digital-max-min</a>   |                | nttp://tiermometer.co.dig.   |
| thermometer-suitable-for-industrial-use.html order number: 810 120   | thermometers   | thermometer-suitable-for-industrial-use.html   |

Appendix I

# REFRIGERATOR TEMPERATURE MONITORING CHART

| Ward /Community Team | Month & Year | _ |
|----------------------|--------------|---|
| Defrosted on:        |              |   |

| Date | Time | Actual | Min | Max | Reset Y/N | Temp b/w 2-8°C Y/N | Action taken if N Please state | Name/Signature |
|------|------|--------|-----|-----|-----------|--------------------|--------------------------------|----------------|
| 01   |      |        |     |     |           |                    |                                |                |
| 02   |      |        |     |     |           |                    |                                |                |
| 03   |      |        |     |     |           |                    |                                |                |
| 04   |      |        |     |     |           |                    |                                |                |
| 05   |      |        |     |     |           |                    |                                |                |
| 06   |      |        |     |     |           |                    |                                |                |
| 07   |      |        |     |     |           |                    |                                |                |
| 08   |      |        |     |     |           |                    |                                |                |
| 09   |      |        |     |     |           |                    |                                |                |
| 10   |      |        |     |     |           |                    |                                |                |
| 11   |      |        |     |     |           |                    |                                |                |
| 12   |      |        |     |     |           |                    |                                |                |
| 13   |      |        |     |     |           |                    |                                |                |
| 14   |      |        |     |     |           |                    |                                |                |
| 15   |      |        |     |     |           |                    |                                |                |
| 16   |      |        |     |     |           |                    |                                |                |
| 17   |      |        |     |     |           |                    |                                |                |
| 18   |      |        |     |     |           |                    |                                |                |
| 19   |      |        |     |     |           |                    |                                |                |
| 20   |      |        |     |     |           |                    |                                |                |
| 21   |      |        |     |     |           |                    |                                |                |
| 22   |      |        |     |     |           |                    |                                |                |
| 23   |      |        |     |     |           |                    |                                |                |
| 24   |      |        |     |     |           |                    |                                |                |
| 25   |      |        |     |     |           |                    |                                |                |
| 26   |      |        |     |     |           |                    |                                |                |
| 27   |      |        |     |     |           |                    |                                |                |
| 28   |      |        |     |     |           |                    |                                |                |
| 29   |      |        |     |     |           |                    |                                |                |
| 30   |      |        |     |     |           |                    |                                |                |
| 31   |      |        |     |     |           |                    |                                |                |
| 21   |      |        |     |     |           |                    |                                |                |

## Additional reading carried out

| Date | Time | Actual | Min | Max | Reset<br>(Y/N) | All temperature readings between 2 – 8 °C (Y/N) | What action taken if temperatures are outside 2-8°C | Name and signature |
|------|------|--------|-----|-----|----------------|---|---|--------------------|
|      |      |        |     |     |                |   |   |                    |
|      |      |        |     |     |                |   |   |                    |
|      |      |        |     |     |                |   |   |                    |
|      |      |        |     |     |                |   |   |                    |

### Information

- 1. If ANY of the readings are outside the 2-8°C range do not use medication, contact your local pharmacy department immediately for advice.
- 2. Refrigerator readings must be carried out on each working day by a nominated person or a deputy in their absence.

Named Person: \_\_\_\_\_Named Deputy: \_\_\_\_\_

- 3. The ACTUAL, MINIMUM & MAXIMUM temperatures must all be read.
- 4. The following information must be recorded on the monitoring chart overleaf including
  - Date (already printed on monitoring chart)
  - Time
  - ACTUAL, MINIMUM, MAXIMUM temperatures
  - Whether temperatures are within 2-8°C range
  - Action taken if outside range
  - Name and signature of person carrying out reading
- 5. Thermometer(s) must be reset after readings have been recorded.
- 6. ALL readings should be between  $2 8^{\circ}$ C, if outside this range see point 1 above.
- 7. Logs must be kept in a secure place for a minimum of 2 years.

# Appendix II

# CLINICAL ROOM TEMPERATURE MONITORING CHART

Ward /Community Team \_\_\_\_\_

Month & Year\_

| Date | Time | Actual | Min | Max | Reset Y/N | Temp >25°C Y/N | Action taken if Y<br>Please state | Name/ Signature |
|------|------|--------|-----|-----|-----------|----------------|-----------------------------------|-----------------|
| 01   |      |        |     |     |           |                |                                   |                 |
| 02   |      |        |     |     |           |                |                                   |                 |
| 03   |      |        |     |     |           |                |                                   |                 |
| 04   |      |        |     |     |           |                |                                   |                 |
| 05   |      |        |     |     |           |                |                                   |                 |
| 06   |      |        |     |     |           |                |                                   |                 |
| 07   |      |        |     |     |           |                |                                   |                 |
| 08   |      |        |     |     |           |                |                                   |                 |
| 09   |      |        |     |     |           |                |                                   |                 |
| 10   |      |        |     |     |           |                |                                   |                 |
| 11   |      |        |     |     |           |                |                                   |                 |
| 12   |      |        |     |     |           |                |                                   |                 |
| 13   |      |        |     |     |           |                |                                   |                 |
| 14   |      |        |     |     |           |                |                                   |                 |
| 15   |      |        |     |     |           |                |                                   |                 |
| 16   |      |        |     |     |           |                |                                   |                 |
| 17   |      |        |     |     |           |                |                                   |                 |
| 18   |      |        |     |     |           |                |                                   |                 |
| 19   |      |        |     |     |           |                |                                   |                 |
| 20   |      |        |     |     |           |                |                                   |                 |
| 21   |      |        |     |     |           |                |                                   |                 |
| 22   |      |        |     |     |           |                |                                   |                 |
| 23   |      |        |     |     |           |                |                                   |                 |
| 24   |      |        |     |     |           |                |                                   |                 |
| 25   |      |        |     |     |           |                |                                   |                 |
| 26   |      |        |     |     |           |                |                                   |                 |
| 27   |      |        |     |     |           |                |                                   |                 |
| 28   |      |        |     |     |           |                |                                   |                 |
| 29   |      |        |     |     |           |                |                                   |                 |
| 30   |      |        |     |     |           |                |                                   |                 |
| 31   |      |        |     |     |           |                |                                   |                 |

### Additional reading carried out

| Date | Time | Actual | Min | Max | Reset<br>(Y/N) | All<br>temperature<br>readings are<br>25 °C (Y/N) | What action taken if temperatures are | Name and signature |
|------|------|--------|-----|-----|----------------|---|---------------------------------------|--------------------|
|      |      |        |     |     |                |   |                                       |                    |
|      |      |        |     |     |                |   |                                       |                    |
|      |      |        |     |     |                |   |                                       |                    |
|      |      |        |     |     |                |   |                                       |                    |

### Information

- 1. If ANY of the readings are above the 25°C for 7 consecutive days do not use medication, contact your local pharmacy department immediately for advice.
- 2. Clinical room readings must be carried out on each working day by a nominated person or a deputy in their absence.

| Named Person: | <b>Named Deput</b> | v: |
|---------------|--------------------|----|
|               |                    |    |

- 3. The ACTUAL, MINIMUM & MAXIMUM temperatures must all be read.
- 4. The following information must be recorded on the monitoring chart overleaf including
  - Date (already printed on monitoring chart)
  - Time
  - ACTUAL, MINIMUM, MAXIMUM temperatures
  - Whether temperatures are above 25°C
  - Action taken if outside recommended temperature
  - Name and signature of person carrying out reading
- 5. Thermometer(s) must be reset after readings have been recorded.
- 6. ALL readings should be 25°C, if outside this temperature for 7 consecutive days, see point 1 above.
- 7. Logs must be kept in a secure place for a minimum of 2 years.

### References

- 1) Policy for Temperature Monitoring of Medicinal Products, NHS Dorset CCG, 2013.
- 2) Guidance for reducing the shelf life of medicines in the event of a heat wave, QC North West England Medicines Management Team, July 2014.