

Raising awareness of vaccine storage & handling

Date

2004

Location

Public Health Protection Unit, NHS Greater Glasgow.

Key Partners

Public Health Pharmacy, Primary Care Division Pharmacy (Community Services), G.P. practices NHS Greater Glasgow, Community Child Health.

Contact

Margaret Johnston
Public Health Pharmacist (Vaccines),

Greater Glasgow NHS Board, Dalian House, 350 St Vincent Street, Glasgow G3 8YU

Tel: 0141 201 4824

Margaret.Johnston@gghb.scot.nhs.uk

Summary of project and achievements**Raising awareness of vaccine storage and handling within Greater Glasgow Primary Care Division**

Greater Glasgow Public Health Protection Unit (GGPHPU) was aware of reports of inappropriate vaccine storage outwith the Glasgow area. This encouraged consultation to raise awareness of best practice, for storage and handling of vaccines within Greater Glasgow NHS Board.

Vaccines are licensed to be stored at temperatures between 2-8°C. Implications of incorrect storage include inadequate protection against infection and a reduced public confidence in immunisation programmes. To this must be added the financial and staff resource requirements should re-immunisation be necessary.

Background

The National Child Immunisation programme is undertaken by Greater Glasgow Primary Care Division for each of the 10,000 babies born annually. General Practices in GGNHS Board obtain vaccine supplies from Leverndale Hospital Pharmacy which is the locally designated National Vaccine Holding Centre. Leverndale Pharmacy, Child Health and GGPHPU have established links in Glasgow's delivery of the National programme and a representative from each specialty agreed to contribute to the project.

Project:

- Agree parameters of Best Practice

The movement of vaccine from manufacturing, through supply to the end user and preparation for injection should be carried out under conditions which allow maintenance of the "cold chain" i.e. monitored refrigeration when stored, and transported within containers which maintain temperatures between 2-8°C.

- Examine and review current practice of supply, procedures in place and determine areas open to procedural failure (**marked ***)
 - a) The National Holding Centre receives vaccine from the Supplier nominated by the Scottish Executive. This vaccine is sent to Leverndale Pharmacy once weekly in a temperature controlled refrigerated vehicle. The delivery is immediately processed at Leverndale and the vaccine stored using an established procedure that ensures temperatures are retained between 2-8°C.

Project continued

- b) General Practices are given the option to receive deliveries on a pre-determined schedule once each week. Quantities are delivered as a result of collaboration between the practice, Child Health (through SIRS)¹ and Leverndale Pharmacy.
- c) the transit to each practice is undertaken using accredited Vaccine Porters which maintain the cold chain and all deliveries are clearly marked "Refrigerate Immediately". A signature of receipt is required which is marked with the time of delivery.
- d) Recommended procedures for storage of vaccines and monitoring of fridge temperatures are advised by Leverndale Pharmacy to the practices on an informal basis.*
- e) Practices are regularly advised of the need to maintain the cold chain.*
- f) Once the delivery has been accepted, "cold chain" maintenance becomes the responsibility of the practice.*

The action plan

Practices in NHSGG appeared to be the area where good practice procedures could fail. It was logistically impossible to visit all practices and available resources would be best utilised by means of an education programme. Inclusion of this topic in the Public Health Annual Vaccine Update Seminars would ensure that all health professionals directly involved with immunisations for the National Child programme were notified.

Delivery of action plan

Having examined and discussed various documents already in circulation, the committee customised a poster "Guidelines to the storage and handling of vaccines".² Draft posters were piloted and amended. The final version is a "user-friendly" dual coloured laminated poster which was distributed by Leverndale Pharmacy to every surgery, following the Public Health Annual Vaccine Seminar. This should be displayed on the door of every refrigerator containing vaccines for use in the child immunisation programme. Such positioning should act as an "aide memoir" before clinic sessions.

The seminars included:

- Education and advice to end-users re the outcome of failed cold chain.
- Instructions on the use of the Min/Max thermometers to ensure precise monitoring and recording.
- Advice to discuss every temperature variation outwith the recommended range with Leverndale Pharmacy
- Reminder that the Division's Guidelines on Immunisation stress the requirement for maintenance of the cold chain.³
- Introduction of the laminated poster.

Conclusion

The project was conceived and undertaken to raise awareness of best practice requirements. Interdisciplinary activity ensured a wide audience by inclusion in the Public Health Department's Annual Education Programme. This raised the profile of the exercise and allowed a personal approach to the desired audience when visits to the practices were impossible. However, this was an awareness exercise. The follow-up necessitates an audit to ensure the information was understood and applied to local practice.

References

1 Scottish Immunisation Recalls System

2 Greater Glasgow Primary Care Division SHOW site

This project was undertaken by:

Margaret Johnston	Public Health Pharmacist (Vaccines) Greater Glasgow NHS Board
Russell Kirk	Senior Pharmacist Leverndale Hospital
Monica Maguire	Public Health Protection Specialist Nurse
Jeff Roberts	Clinical Director of Pharmacy, Greater Glasgow Primary Care Division