

EXPERT PANEL TO ADVISE ON CHILDHOOD LEUKAEMIA/LYMPHOMA IN HELENSBURGH

Teleconference held 31st October 2012

Participants

Panel members: Dr Bernard Stewart, Dr Alison Jones, Dr Stephen Morrell, Dr Tim Driscoll, Dr Lesley Ashton, Dr Vicky Sheppard

NSW Health: Dr Lee Taylor, Dr Jeremy McAnulty (Chair), Adam Capon

Observers: Mr Curtis Gregory, Dr Kleete Simpson, Dr Johanne Cochrane, Ms Tina Navin, Ms Kristie Carter

Purpose

This panel was convened at the request of the Chief Health Officer following concerns raised by community members about unusual numbers of cases of leukaemia and lymphoma in young people in the Helensburgh area. The panel was asked to advise on:

- the best interpretation of the current data on leukaemia and lymphoma occurrence in Helensburgh and the surrounding area
- whether or not further investigation would be useful
- what advice we should be providing to the community.

History of concerns

- There have been ongoing concerns raised by some members of the community about cancer rates in the Illawarra since several cases of leukaemia were identified in Warrawong in the 1990s.
- An investigation of the Warrawong cases did not identify any common cause or threat to the community.
- Following community concerns raised in 2008 about excess leukaemia in Helensburgh, the Public Health Unit analysed cancer rates from 1992 to 2006 and found that there was no unusual rate of cases over that time.
- In October 2012 a parent whose child suffered from lymphoma raised concerns about the unusual number of children with leukaemia and lymphoma in Helensburgh.
- The PHU is seeking advice from Wollongong City Council on land use in the Helensburgh area. However to date no sources of industrial contamination associated with childhood leukaemia have been identified.
- The only known causes of acute leukaemia (as documented by the International Agency for Research on Cancer at <http://monographs.iarc.fr/>) are exposure to benzene (for adults in occupational settings), ionizing radiation and cytotoxic drugs (following treatment for cancer).

Relevant outcomes from past investigations of community-notified cancer clusters

- To date, international investigations have not confirmed a causal link between known or suspected carcinogens and risk of cancer in community reported cancer clusters.

Analysis of childhood leukaemia and lymphoma rates in the Local Health District and Helensburgh

- Six patients with childhood (under 20 years) leukaemia from postcode 2508 in the years 2005-2008 were recorded in the Central Cancer Registry (CCR). Of these, four lived in Helensburgh. There have been no additional patients with childhood leukaemia identified in this postcode since 2008.

- One patient with childhood leukaemia was identified from 1992 to 2004 in postcode 2508.
- Two patients with childhood Hodgkin's lymphoma and one with non-Hodgkin's lymphoma have been identified since 2008 for this postcode.
- CCR data may not be complete after 2008 as death records are not yet included, although 3% or less cases would be expected to be reported from death registrations alone. For non-death registration notifications, the CCR is reasonably up to date to the third quarter of 2010.

Interpretation of the current data on cancer in Helensburgh and the surrounding area

- The higher rate of leukaemia observed between 2005 and 2008 was most likely to have arisen by chance.

Are further investigations needed?

- The PHU will seek advice from Wollongong City Council on land use in the Helensburgh area. To date, no sources of industrial contamination associated with childhood leukaemia have been identified.
- Complete demographic information on the cases, including age at onset, home address, length of residence in the area and parental occupation will be sought from either the CCR or the local GPs.
- Local GPs will be contacted and the CCR will be examined to identify any additional cases from 2009 not yet identified.
- Given the large number of comparisons, it is more appropriate to present the data on cancer rates using 99% rather than 95% confidence intervals.

Advice to the community

- Statistically, uncommon diseases occur at very high and very low rates in small communities naturally by chance.
- This rate of leukaemia in the Helensburgh area is higher than expected for the period 2005 to 2008.
- The rate of leukaemia in the Helensburgh area was lower than expected for some of the period before 2005.
- There is no evidence that the Helensburgh community has been exposed to agents known to cause childhood cancers.
- This higher than expected rate of leukaemia and lymphoma observed in the Helensburgh area is very likely to be a chance occurrence.
- Additional data are being sought and analysis carried out, however these are not expected to change the Panel's findings.
- No environmental testing is recommended at this point
- PHU will continue to review the situation.
- The PHU will continue to be available to discuss concerns with family members and the community.

Results of additional investigations requested by the panel

1. The PHU has sought information from Wollongong City Council and the EPA on previous and current land use in the Helensburgh area and any significant pollution or contamination events. Publically available sources of information have also been reviewed. Previous land use was predominantly rural before becoming more residential. No sources of industrial contamination that might be associated with higher risk have been identified.
2. For the period after 2008 until the end of 2011, additional cases of leukaemia and non Hodgkin's lymphoma were identified manually from the CCR for the 0-19 age range across the Illawarra Shoalhaven Local Health District. One additional case of leukaemia was notified during this period in the Helensburgh area. Analysis of this data showed that the elevated incidence of leukaemia has not persisted beyond 2008.
3. The PHU has collected available demographic data relating to the cases of childhood leukaemia and non Hodgkin's lymphoma covered by the investigation. Contact with the Helensburgh GPs did not identify any additional cases of either leukaemia or non Hodgkin's lymphoma and confirmed the cases identified through the CCR.
4. The PHU has reanalysed the data using 99% confidence intervals without any real changes to the results. Similarly, additional data was collected, formatted and analysed and has been included in the updated report. The interpretation of the data remains the same – there was an elevated leukaemia incidence rate from 2005-2008 in the Helensburgh area and there are no proven environmental causal agents for childhood leukaemia. There was no unusual incidence of non Hodgkin's disease.