



Health Protection Report

weekly report

Current Issue: Volume 1 Number 50 **Published on:** 14 December 2007

Current News

- ▶ Hepatitis C in England 2007
- ▶ Trends in Antimicrobial Resistance in England, Wales, and Northern Ireland, 2006

Infection reports

Enteric

- ▶ General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/07
- ▶ Salmonella infections, (faecal specimens) England and Wales, reports to the HPA (Salmonella data set): October 2007
- ▶ Common gastrointestinal infections, England and Wales: laboratory reports: weeks 45-48/07
- ▶ Salmonella serotypes recorded in the Health Protection Agency salmonella data set: July to September 2007 (provisional)

CJD

- ▶ Creutzfeldt-Jakob disease (CJD) update report

HPR subscription

To subscribe to the Health Protection Report, please email hpr@hpa.org.uk

News

- ▶ Hepatitis C in England 2007
 - ▶ Trends in Antimicrobial Resistance in England, Wales, and Northern Ireland, 2006
-

Hepatitis C in England 2007

The Health Protection Agency has released its annual report on Hepatitis C in England [1]. This year's report provides an update on progress towards the Hepatitis C Action Plan [2]. The number of newly diagnosed cases of hepatitis C infection in England reached 8,346 in 2006, 10% higher than in 2005, suggesting that diagnosis is increasing. Between 2002 and 2006 there has been an almost ten-fold increase in the number of hepatitis C tests carried out in specialist drug services. In addition, testing at GP surgeries has continued to remain high.

The report highlights that the most important risk factor for acquisition of hepatitis C is injecting drug use. The prevalence of hepatitis C amongst individuals who started injecting drugs within the last 3 years remains high at 22 per cent.

In 2006/07 media coverage on hepatitis C increased by more than 60 per cent compared to last year. There was an increase in the number of visits to the NHS website and Hepatitis C Information Line. Advertising campaigns included radios, newspapers and consumer magazines. Charities such as The British Liver Trust, The Hepatitis C Trust, The Children's Liver Disease Foundation as well as the late Dame Anita Roddick have also raised the profile and awareness of hepatitis C.

The numbers of deaths, transplants and hospital admissions for hepatitis C-related end stage liver disease in England continue to rise, and a statistical model developed in collaboration with the MRC, predicts that the number of people with severe liver disease will increase to 2,670 by 2015. The report warns that, with the continued increase in the burden of HCV-related disease, there is no room for complacency and that data on referral uptake and outcome of treatment are urgently required to assist in the effective planning of local hepatitis C services.

Current prevention strategies necessarily centre around injecting drug users (IDUs) and in areas, like prisons, where IDU is concentrated. These strategies focus on reducing initiation of injecting drug use, helping IDUs to stop injecting, and on harm minimisation in those who continue to inject. Health promotion resources have been developed to target and inform IDUs on prevention, transmission, management and treatment of hepatitis C.

Full copies of the report are available from the HPA's Centre for Infections, email: hepatitisC@hpa.org.uk.

Electronic copies of the annual report as well as a slide set of all the tables and figures used in the report can be downloaded from <http://www.hpa.org.uk/publications/PublicationDisplay.asp?PublicationID=116>.

References

1. HPA. Hepatitis C in England. The Health Protection Annual Report 2007. London: HPA, 2007. Available at <http://www.hpa.org.uk/publications/PublicationDisplay.asp?PublicationID=116>
2. Department of Health. *Hepatitis C Action Plan for England*. London: Department of Health, 2004. Available at

http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4084713.pdf

Trends in Antimicrobial Resistance in England, Wales, and Northern Ireland, 2006

The Health Protection Agency has published its fourth report providing a detailed overview of antimicrobial resistance in a range of pathogens (bacteria, viruses, fungi, and protozoa) of public health importance [1]. The majority of the data presented relate to England, Wales, and Northern Ireland, although some data from other European countries are included reflecting the participation of the HPA in the European Antimicrobial Resistance Surveillance Scheme (EARSS). Although this report focuses on data collected during 2006, where possible, trend data over a longer period of time are also presented in order to put the most recent data into context.

References

1. HPA. *Antimicrobial resistance in England, Wales and Northern Ireland, 2006*. London: Health Protection Agency, 2007. Available at <http://www.hpa.org.uk/publications/PublicationDisplay.asp?PublicationID=115>.

Enteric

Enteric Routine Data Reports

- ▶ General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/07
- ▶ Salmonella infections, (faecal specimens) England and Wales, reports to the HPA (Salmonella data set): October 2007
- ▶ Common gastrointestinal infections, England and Wales: laboratory reports: weeks 45-48/07

- ▶ Salmonella serotypes recorded in the Health Protection Agency salmonella data set: July to September 2007 (provisional)

General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/07

| Health Protection Unit | Organism | Location of food prepared or served | Month of outbreak | Number ill | Cases positive | Suspect vehicle | Evidence |
|------------------------|--------------------------------|-------------------------------------|-------------------|------------|----------------|------------------|----------|
| Cheshire & Merseyside | <i>S. Enteritidis</i> PT8 | Restaurant | Oct | 3 | 3 | – | – |
| Humber | <i>S. Enteritidis</i> | Retailer | Nov | 7 | 7 | – | – |
| South West Peninsula | <i>Clostridium perfringens</i> | Function | Nov | 4 | 4 | Bolognaise sauce | D |

M (microbiological): identification of an organism of the same type from cases and in the suspect vehicle, or vehicle ingredient(s), or detection of toxin in faeces or food; D (descriptive): other evidence, usually descriptive, reported by local investigators as indicating the suspect vehicle or food; S (statistical): a significant statistical association between consumption of the suspect vehicle(s) and being a case.

Salmonella infections (faecal specimens), England and Wales, (reports to the HPA salmonella data set): October 2007

Details of 1409 serotypes of Salmonella infections recorded in October are given in the table below. In November 2007, 870 Salmonella infections were recorded and preliminary information was received about two outbreaks (see table above).

| | October 2007 |
|---|--------------|
| <i>S. Enteritidis</i> (PT4) | 195 |
| <i>S. Enteritidis</i> (other PTs) | 652 |
| <i>S. Typhimurium</i> | 146 |
| <i>S. Virchow</i> | 41 |
| Others (typed) | 375 |
| Total Salmonella (provisional data)* | 1409 |

*Figures quoted from the Health Protection Agency salmonella data set are for isolates confirmed and typed by Laboratory of Enteric Pathogens (LEP).

**Common gastrointestinal infections, England and Wales, laboratory reports:
weeks 45–48/07**

| Laboratory reports | Number of reports received | | | | Total reports | Cumulative total to | |
|-------------------------------|----------------------------|-------|-------|-------|---------------|---------------------|--------------|
| | 45/07 | 46/07 | 47/07 | 48/07 | 45-48/07 | 48/07 | 48/06 |
| <i>Campylobacter</i> | 932 | 780 | 677 | 373 | 2762 | 47030 | 44174 |
| <i>Escherichia coli</i> O157* | 13 | 12 | 18 | 17 | 60 | 686 | 900 |
| <i>Salmonella</i> † | 225 | 226 | 178 | 127 | 756 | 11172 | 11650 |
| <i>Shigella sonnei</i> | 7 | 7 | 10 | 4 | 28 | 922 | 613 |
| Rotavirus | 37 | 39 | 44 | 25 | 145 | 12533 | 13211 |
| Norovirus | 131 | 117 | 79 | 34 | 361 | 4553 | 4198 |
| <i>Cryptosporidium</i> | 74 | 74 | 65 | 41 | 254 | 2823 | 3458 |
| <i>Giardia</i> | 62 | 58 | 55 | 34 | 209 | 2732 | 2752 |

*Vero cytotoxin-producing isolates (data from Health Protection Agency's Laboratory of Enteric Pathogens (LEP)).
† Data from Health Protection Agency's Laboratory of Enteric Pathogen

Salmonella serotypes recorded in the Health Protection Agency salmonella data set: July to September 2007 (provisional)

| Organism | Location of food Prepared or served | Number Ill | Cases Positive | Suspect Vehicle | Evidence |
|-------------------------------|-------------------------------------|------------|----------------|-------------------------------|--|
| Campylobacter | Shop Retailer | 7 | 4 | – | – |
| <i>Escherichia coli</i> O157 | Shop Retailer | 46 | 39 | Cooked meats | M |
| <i>Escherichia coli</i> O157 | Restaurant | 2 | 2 | Various food | M |
| <i>Salmonella</i> senftenberg | National | 30 | 30 | Basil | M |
| Scombrototoxin | Restaurant | 2 | – | Tuna | D |
| Scombrototoxin | Restaurant | 4 | – | Tuna | D |
| Unknown | Nursing Home | 8 | – | Broccoli and cauliflower bake | S. aureus (M) & B cereus (M) from food |

All serotypes recorded in the HPA salmonella data set in the third quarter of 2007 are listed below. There were more than ten reports of 29 serotypes, two to ten reports of 63 serotypes, and one report of 69 serotypes.

More than ten reports of the following serotypes were received.

| Serotype | No. of Reports |
|-------------------|-----------------------|
| S. Agona | 24 |
| S. Braenderup | 44 |
| S. Brandenburg | 13 |
| S. Bredeney | 14 |
| S. Corvallis | 19 |
| S. Derby | 13 |
| S. Durham | 21 |
| S. Enteritidis | 2531 |
| S. Hadar | 25 |
| S. Haifa | 17 |
| S. Heidelberg | 18 |
| S. Infantis | 35 |
| S. Java | 33 |
| S. Kedougou | 21 |
| S. Kentucky | 41 |
| S. Kottbus | 16 |
| S. Mbandaka | 19 |
| S. Montevideo | 23 |
| S. Newport | 57 |
| S. Oranienburg | 16 |
| S. Poona | 11 |
| S. Saint-Paul | 16 |
| S. Schwarzengrund | 16 |
| S. Senftenberg | 25 |
| S. Stanley | 35 |
| S. Thompson | 15 |
| S. Typhimurium | 468 |
| S. Unnamed | 63 |
| S. Virchow | 135 |

Between two and ten reports of each of the following serotypes were received.

| | | | |
|-----------------|----|----------------|----|
| S. Aberdeen | 3 | S. Ituri | 2 |
| S. Abony | 3 | S. Javiana | 4 |
| S. Adelaide | 4 | S. Kiambu | 2 |
| S. Agama | 8 | S. Kirkee | 3 |
| S. Ajobo | 7 | S. Litchfield | 2 |
| S. Albany | 4 | S. Livingstone | 2 |
| S. Altona | 3 | S. London | 6 |
| S. Anatum | 10 | S. Mango | 2 |
| S. Apapa | 3 | S. Meleagridis | 2 |
| S. Arizonae | 9 | S. Menhaden | 2 |
| S. Augustenborg | 2 | S. Mikawasima | 7 |
| S. Bareilly | 7 | S. Minnesota | 3 |
| S. Blockley | 3 | S. Monschaui | 2 |
| S. Bonariensis | 2 | S. Muenchen | 10 |
| S. Butantan | 2 | S. Muenster | 5 |
| S. Cerro | 2 | S. Napoli | 4 |
| S. Chester | 5 | S. Ohio | 2 |
| S. Coeln | 2 | S. Orion | 2 |
| S. Colindale | 10 | S. Oslo | 5 |
| S. Drypool | 5 | S. Panama | 4 |
| S. Dublin | 3 | S. Potsdam | 3 |
| S. Durban | 2 | S. Reading | 8 |
| S. Emek | 6 | S. Richmond | 6 |
| S. Georgia | 2 | S. Rubislaw | 2 |
| S. Give | 6 | S. San-Diego | 5 |
| S. Gold-Coast | 3 | S. Seremban | 2 |
| S. Grumpensis | 2 | S. Singapore | 2 |
| S. Havana | 3 | S. Tennessee | 6 |
| S. Hull | 3 | S. Uganda | 3 |
| S. Hvittingfoss | 5 | S. Weltevreden | 9 |
| S. Ibadan | 7 | S. Zanzibar | 2 |
| S. Indiana | 2 | | |

One report of each of the following serotypes was received.

| | | |
|----------------------|-------------------|-----------------|
| S. Aba | S. Fluntern | S. Mississippi |
| S. Agoueve | S. Fomeco | S. Mkamba |
| S. Amager | S. Galiema | S. Nagoya |
| S. Ank | S. Gaminara | S. Nairobi |
| S. Ardwick | S. Gateshead | S. New-Haw |
| S. Arechavaleta | S. Gatuni | S. Nienstedten |
| S. Arkansas | S. Glostrup | S. Odozi |
| S. Baildon | S. Guinea | S. Pomona |
| S. Bardo | S. Irumu | S. Ridge |
| S. Bleadon | S. Isangi | S. Rissen |
| S. Bochum | S. Jangwani | S. Ruiru |
| S. Bournemouth | S. Kaneshie | S. Soerenga |
| S. Bovis-Morbificans | S. Kingabwa | S. Sofia |
| S. Buzu | S. Kinondoni | S. Stanleyville |
| S. Canada | S. Kisangani | S. Suarez |
| S. Caracas | S. Landwasser | S. Teddington |
| S. Carmel | S. Larochelle | S. Tel-El-Kebir |
| S. Chailey | S. Lexington | S. Veneziana |
| S. Chandans | S. Marseille | S. Wagenia |
| S. Dar-Es-Salaam | S. Matopeni | S. Warragul |
| S. Duesseldorf | S. Miami | S. Wassenaar |
| S. Duisburg | S. Minneapolis | S. Weybridge |
| S. Eschberg | S. Mishmar-Haemek | S. Wien |

Emerging Infections/CJD

Creutzfeldt-Jakob disease (CJD) update report

This six-monthly report provides an update on reports of incidents of potential iatrogenic (healthcare-acquired) exposure to CJD via surgery, and on the National Anonymous Tonsil Archive. Data are correct as of 7 December 2007.

For numbers of CJD case reports, readers should consult data provided by the national CJD Surveillance Unit (NCJDSU), Edinburgh [1]. The latest yearly analysis of vCJD reports (onsets and deaths) is also available from the NCJDSU website [2].

Reports of incidents of potential iatrogenic exposure to CJD via surgery 01 January 2000 to 30 June 2007

There were 317 incidents reported from 1 January 2000 to 30 June 2007 (table 1). Nine surgical incidents were reported in the first half of 2007 (since the previous update report). Surgical incidents occur when instruments considered potentially contaminated with the CJD agent during use on an index patient have been subsequently re-used on other patients. The index patient is one whose surgery results in potential contamination of instruments with prions. Table 1 shows the number of CJD surgical incidents reported to the Panel from January 2000 to June 2007 by the diagnosis of the index patient.

Table 1 CJD Surgical Incidents (n=317) reported to the CJD Incidents Panel, by diagnosis of index patient: January 2000 to June 2007

| CJD Status of index patient | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 1st half 2007 | Total |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|------------------|
| Sporadic (possible, probable or definite) | 7 | 19 | 21 | 23 | 17 | 17 | 28 | 5 | 137(43%) |
| vCJD (possible, probable or definite) | 6 | 14 | 22 | 5 | 5 | 1 | 2 | | 55(17%) |
| Familial including 'at risk' familial | – | 2 | 2 | 7 | 1 | 3 | 6 | | 21(7%) |
| 'At risk' vCJD blood component recipient | – | – | – | – | 3 | 10 | 5 | 1 | 19(6%) |
| 'At risk' - vCJD plasma product recipient | – | 1 | 2 | – | 9 | 17 | 7 | 3 | 39(12%) |
| 'At risk' - other | – | – | 3 | 2 | 1 | 2 | 4 | | 12(4%) |
| CJD type unclear/ CJD unlikely | 1 | 1 | | 4 | 1 | 1 | 2 | | 10(3%) |
| Not CJD | 2 | 1 | 4 | 7 | 4 | 1 | | | 19(6%) |
| Other | – | – | 1 | 1 | 1 | 1 | 1 | | 5(2%) |
| Total | 16 | 38 | 55 | 49 | 42 | 53 | 55 | 9 | 317(100%) |

Investigation of surgical incidents may result in advice to remove surgical instruments from clinical use (to quarantine, destroy, or donate for research). Such advice is generally only given for instruments considered to be potentially contaminated with the CJD agent that have not undergone a certain number of cycles of use and decontamination since their use on an index patient. Hospitals are asked to consider sending any instruments to be permanently removed from use to the Surgical Instrument Store (held by the Health Protection Agency,

Porton Down) for research. In the first half of 2007, there was one incident in which instruments were permanently removed from use.

The Panel may advise contacting and informing some patients of their possible exposure to CJD in a surgical incident. Such advice is generally only given for patients who have definitely been exposed to potentially contaminated instruments which have been used on risk tissues in certain index patients. The Panel advises that these patients should be considered 'at-risk of CJD for public health purposes' and asked to take certain precautions (*ie* not to donate blood or other tissues and to inform their medical and dental carers prior to any invasive procedures) in order to reduce the risk of transmitting the CJD agent further. Since 2000, 17 incidents have given rise to advice to contact and inform subsequent patients of their potential exposure to CJD (table 2). The Panel advised that a total of 72 patients should be contacted and informed that they are 'at-risk' of CJD for public health purposes. 14 patients have been subsequently re-assessed, and based on updated risk assessments are no longer considered to be 'at-risk' of CJD for public health purposes.

Table 2 Panel advice to inform patients that they are 'at-risk' of CJD/vCJD: 1 January 2000 to 31 June 2007

| Diagnosis of index patient | Procedure on index patient | Number of Incidents | Number of 'at risk' patients notified (subsequently 'denotified') |
|----------------------------|----------------------------|---------------------|---|
| Sporadic CJD | Brain biopsy | 2 | 27 (-) |
| | Cataract surgery | 9 | 29 (11) |
| vCJD | Appendicectomy | 1 | 2 (-) |
| | Cataract surgery | 1* | 2 (1) |
| 'at risk' vCJD | Endoscopy & GI surgery | 4† | 12 (2) |
| Total | | 17 | 72 (14) |

*The index patient was a blood component recipient with evidence of vCJD infection. Information about the CJD Incidents Panel can be found on the HPA website [3].

† For one incident, the total number of 'at-risk' patients is still being determined.

National anonymous tonsil archive for studies of detectable abnormal prion protein

The National Anonymous Tonsil Archive (NATA) continues to receive approximately 400 tonsil pairs per week (figure 1). The archive had received a total of 51,841 tonsil pairs up to the end of October 2007 from hospitals in England and Scotland. A further 3000 tonsil pairs have been received from the Medical Research Council Prion Unit at the Institute for Neurology, National Hospital for Neurology and Neurosurgery. The total number of tonsil pairs in the archive was 54,841. The number of collection forms completed, but with no tonsil tissue collected, was 1,792 (1,155 due to patient objection and 637 due to clinical pathology being requested).

Of the 100 NHS Hospital Trusts that perform over 200 tonsillectomies per year in England, the number that have been recruited and are currently sending tonsil pairs to NATA on a regular basis is 90. There are 120 hospitals sites within these trusts taking part in NATA. At present, approximately 50,000 tonsillectomies are performed annually in England. Figure 2 shows the number of tonsil pairs received from each Strategic Health Authority.

Figure 1 Number of tonsil pairs collected for NATA Monthly: January 2004 to October 2007

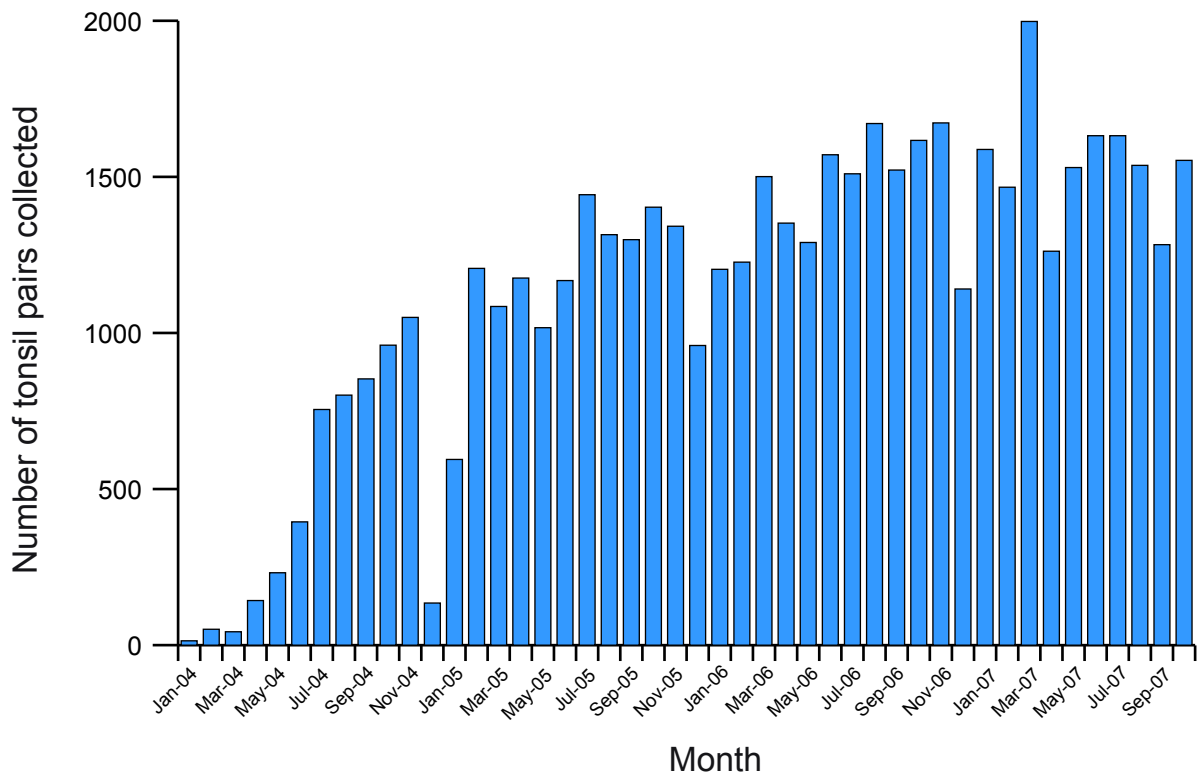
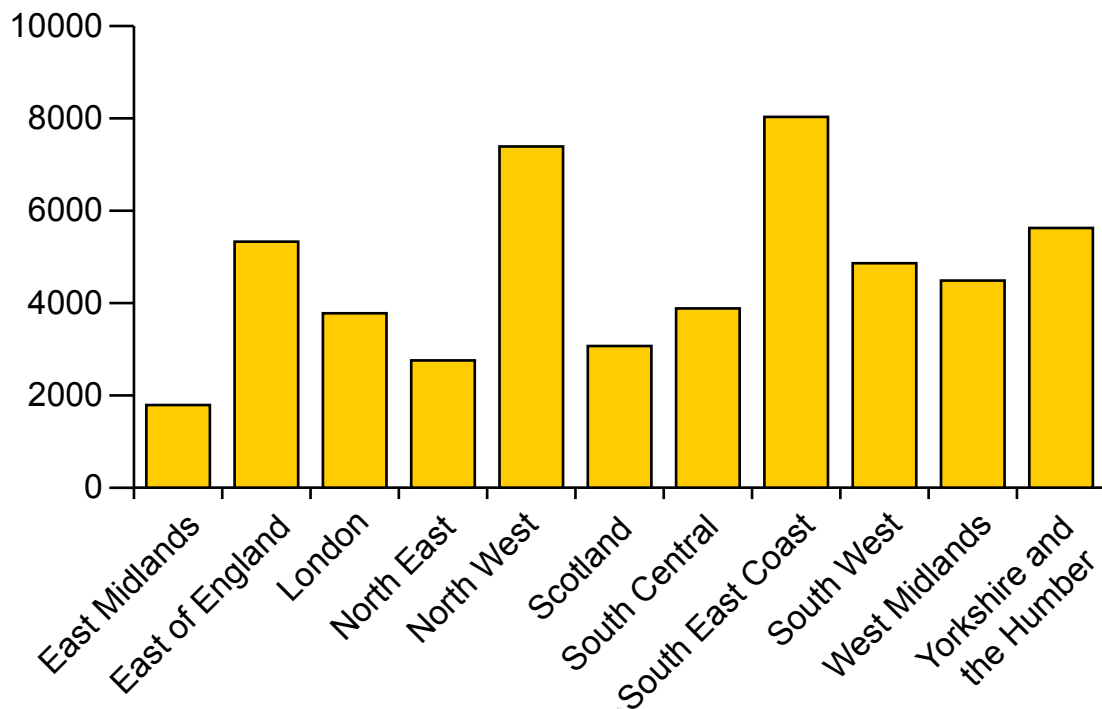


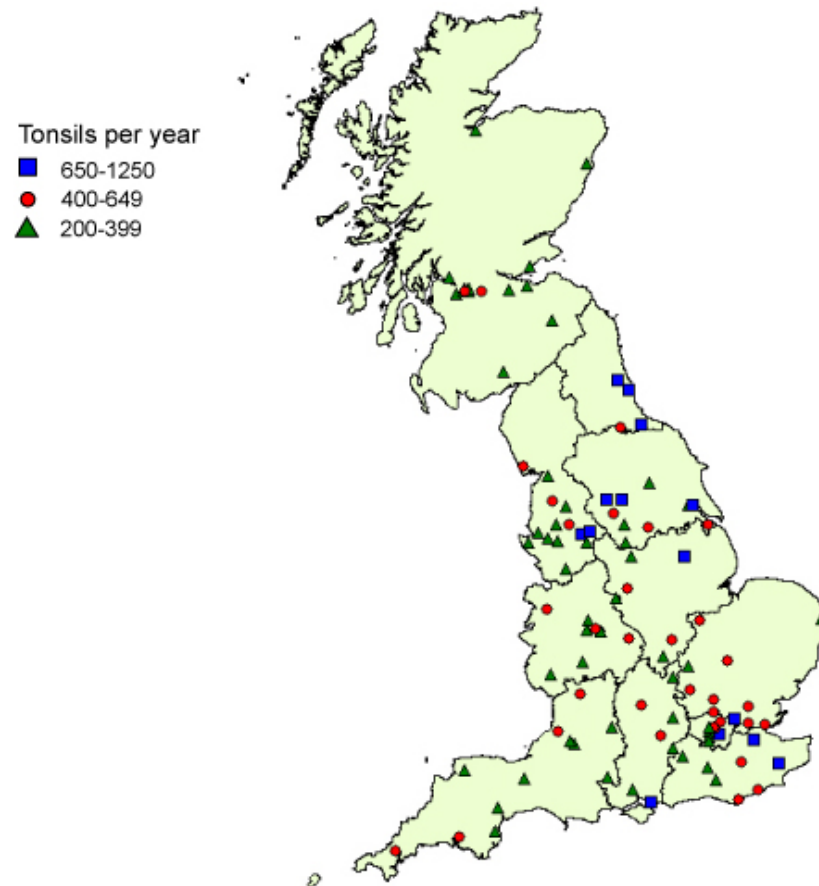
Figure 2 Tonsils collected by Strategic Health Authority: October 2007



Just over 5000 tonsillectomies are performed in Scotland each year. The project in Scotland is being coordinated by Health Protection Scotland where there are 14 hospitals that are each carrying out more than 200 tonsillectomies per year. All 14 of these hospitals have been recruited and are collecting tonsils for NATA. The tonsil tissue is being transported to the

Health Protection Agency in Colindale for inclusion in the archive. Figure 3 shows all the hospitals within England and Scotland currently recruited in the study.

Figure 3 NHS Trusts and Scottish Hospitals currently collecting and sending tonsil tissue to the archive: October 2007



Testing of homogenates of the tonsil tissue from the archive began at the end of January 2007. Two enzyme immunoassays (EIAs) are being used for the initial screening of the homogenates for the presence of abnormal prion protein. These EIAs allow the identification of any tonsils that need to be investigated further by the more specific tests of Western blotting (WB) and immunohistochemistry (IHC)

References

1. The National Creutzfeldt-Jakob Disease Surveillance Unit, The University of Edinburgh . *CJD statistics. CJD figures*. Edinburgh: NCJDSU, 3 May 2005. Available at <<http://www.cjd.ed.ac.uk/figures.htm>>.
2. The National Creutzfeldt-Jakob Disease Surveillance Unit, The University of Edinburgh. *Incidence of variant Creutzfeldt-Jakob Disease Onsets and Deaths in the UK January 1994 – March 2005*. Edinburgh: NCJDSU, 14 April 2005. Available at <<http://www.cjd.ed.ac.uk/vcjdqdec06.htm>>.
3. Health Protection Agency CJD Incidents Panel. [online] cited 12 December 2007]. London: HPA. Available at <http://www.hpa.org.uk/infections/topics_az/cjd/incidents_panel.htm>.
4. HPA. The National Anonymous Tonsil Archive: a resource for Creutzfeldt-Jakob disease studies. *Commun Dis Rep CDR Wkly* [serial online] 2003 [cited 10 November 2005]; **13**(44): News. Available at: <<http://www.hpa.org.uk/cdr/archives/2003/cdr4403.pdf>>.