

# **Q FEVER VACCINATION PROGRAMME**

## **Information Brochure**

### *Hunter Area Pathology Service*

#### **Q Fever**

Q Fever is caused by a microorganism called *Coxiella burnetii*. It is an infection of animals that can be transmitted to humans.

A variety of animals, both domestic and wild, may be infected, but remain well. Humans most often acquire this infection from cattle, sheep and goats. Approximately 450 new human infections are notified in Australia each year.

You may be infected by:

- being splashed with fluid at calving/birth
- during slaughter
- being splashed with infected urine or faeces
- contact with contaminated blood
- drinking unpasteurised milk from an infected animal
- exposure to dusts contaminated with Q fever

Those at reasonable risk are:

- abattoir workers
- farm workers
- dairy workers
- shearers
- wool sorters
- veterinary workers
- animal transporters

#### **Acute Q Fever**

Q Fever has an incubation period of 1-4 weeks. In many cases there are no symptoms but when symptoms occur they may have an abrupt onset, usually with:

- muscle pain
- severe headaches
- high fever

Q Fever is frequently misdiagnosed as influenza.

The illness usually lasts 1-2 weeks. Some may take up to six weeks to recover, especially when more severe forms of the disease involving pneumonia or hepatitis occur. The majority of patients recover completely and are immune to further attacks.

### **Chronic Q Fever**

Chronic disease is most often associated with infection of the heart valves (endocarditis). This serious complication most often occurs after acute Q Fever in patients who have pre-existing heart valve disease or heart valve replacement. It is associated with fever, fatigue and eventual serious heart valve damage.

### **Post-Q Fever Fatigue Syndrome**

A small proportion of patients (5-20%) develop a chronic fatigue syndrome which may last for many months. Symptoms of this condition include:

- fatigue and depression
- night sweats (usually without fever)
- headaches, and sensitivity to light
- pain in the joints and limbs
- loss of concentration

### **The Vaccine**

The Q Fever vaccine was developed in Australia and was released in 1989. It has been used widely in Australia and has enabled significant reduction in Q Fever infections within abattoirs. The vaccine usually causes minor tenderness at the injection site (2-4 days duration). Sometimes a painless lump remains for months.

Vaccination of persons who have already been exposed to Q Fever naturally or by previous vaccination can result in a marked reaction at the vaccine site. It is therefore essential that persons seeking vaccination be questioned closely about past infection/vaccination and then tested for evidence of a past Q Fever exposure. A blood test for Q fever antibody and a skin test (similar to the Mantoux or tuberculin test for tuberculosis) are performed. The skin test is read after 7 days. Provided both tests are negative, vaccination proceeds. There are no significant reactions caused by the screening tests.

It should also be noted that rarely, individuals without evidence of past Q fever exposure, hypersensitivity reactions to the vaccine may occur. Such reactions consist of either a systemic influenza-like illness (lasting a week or more) or a marked, persistent (lasting months) pain and tender swelling at the vaccine site. There is no current way of predicting these rare reactions.

Whilst the vaccine is highly effective at preventing Q Fever infection, vaccination may occasionally fail to provide protection.

## Q Fever Clinics

Clinics can be organised at hospitals in the Upper or Lower Hunter or at a workplace, provided there are more than 5 persons to be screened.

Vaccination is also available at John Hunter Hospital, a monthly clinic is held. Ring 49223444 for an appointment. Two clinic visits are required one week apart.

Day 1 Each person receives a skin test and has a blood sample taken.

Day 2 The skin test is read and the blood test result is available. If both tests are negative the vaccine is given, provided the person has not been vaccinated before. If either the blood test or the skin test is positive the person is immune and the vaccine is not required.

The total cost due, after Day 2 will be invoiced to you. A personal tax rebate may be claimable for the cost of this procedure.

*For further details please contact:*

Dr J Ferguson  
Division of Microbiology and Infectious Diseases  
Hunter Area Pathology Service  
Locked Bag 1  
Hunter Region Mail Centre NSW 2310  
Telephone: 02 49214422  
Facsimile: 02 49214440

## Hunter Area Pathology Service

The Hunter Area Pathology Service provides an integrated pathology service to Newcastle and the Hunter Region. In addition, specialist referral services are provided to areas such as New England and the North Coast.

The Hunter Area Pathology Service has a commitment to training, education, research activities and community health. As part of our commitment we provide the people of the Upper and Lower Hunter a comprehensive Q Fever vaccination program.