



## **Searching for Syphilis**

*Treatment for syphilis*

**Narrator:**

Five hundred years after Rivenhall woman, syphilis was everywhere.

**Actuality on film:**

**Patient:**

Good morning Doctor.

**Doctor:**

Good morning. Well, I've seen the result of your blood test and I'm afraid it's positive.....

**Narrator:**

Until as recently as the mid-1940s it was one of the western world's most feared diseases.

**Patient:**

There must be something wrong Doctor, I've never had syphilis.

**Doctor:**

Syphilis is a very treacherous disease. The first symptoms may have been hardly noticeable and it may have lain dormant for years.

**Patient:**

You mean I may have got it a long time ago?

**Doctor:**

Possibly.

**Patient:**

I've been married 10 years. Could it have been before that?

**Doctor:**

Oh yes, you may have had it for as long as that without noticing any effects.

**Patient:**

Is my wife..... has she been infected too?

(Doctor nods gravely)

**Narrator:**

But then came penicillin.

**Piers Mitchell:**

One thing that's a big disadvantage for syphilis is that it hasn't shown much evidence of being able to develop resistance to the treatments we're giving it. Most different bacteria in the last 50 years or so have developed serial resistance to various different antibiotics that we're using to treat it with, whereas syphilis is still surprisingly sensitive to the basic antibiotics that we started using back in the 1940s, namely penicillin.

**Narrator:**

But despite the fact that syphilis responds well to penicillin it has staged a come back in many communities.

**Sheila Lukehart:**

This bug is very smart, we have epidemics in the United States of syphilis about every ten years or so - you can see a peak in the numbers of reported cases. And from peak to peak you see that it jumps populations. In the early 1980s it was the disease was found primarily in homosexual and bisexual men. In 1990, the peak incidence was found in African Americans in the inner city and was in some cities at least associated with the crack cocaine epidemic. And now the numbers are beginning to rise again with syphilis becoming more common in men who have sex with men in the large cities along the west coast.

**Narrator:**

To combat this problem the United States recently announced its intention to eradicate syphilis altogether. Armed with the new genetic map of the syphilis genome, scientists are pressing ahead with the hunt for a vaccine.

**Sheila Lukehart:**

There are several possible goals for a vaccine for syphilis, obviously the best vaccine would be one that would prevent infection from occurring. That's going to be extraordinarily difficult, there has been only one successful vaccine for syphilis in the animal model, and it required over fifty injections during a thirty seven week period. It's certainly not a practical vaccine for humans.

If one can't develop a vaccine that completely protects against infection, perhaps the next best thing would be a vaccine that prevents transmission. If you have a vaccine that causes the primary lesion in a patient or in a subject who acquires syphilis from ulcerating, that may be enough to stop transmission to the next person, and although it doesn't protect that first individual, it does stop the chain of transmission which from a public health point of view would be a desirable benefit.