

Additional PCR testing performed and confirmed a BCG strain.

The BCG strain was sensitive to Isoniazid, Ethambutol, Rifampicin and resistant to Pyrazinamide.

Other investigations included: Leishmaniasis serology negative, HIV negative, ESR, U&E, LFTs, CRP and Chest x-ray normal.

He was referred to infectious diseases clinic and prescribed Rifampicin, Isoniazid, Ethambutol and Pyridoxine for 9 months. At review after 2 months of treatment, the lesions were no longer itchy and were not discharging pus or blood. On examination, the lesions were less indurated and erythematous.

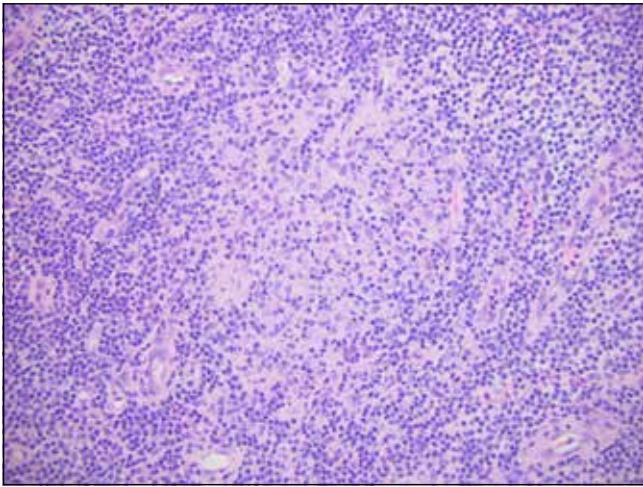


Fig 2.

The Bacille Calmette-Guérin (BCG) vaccine is a vaccine against Mycobacterium Tuberculosis infection which has been in use since 1921. BCG uses a strain of live attenuated Mycobacterium Bovis.<sup>1</sup>

In the United Kingdom, the BCG vaccine was administered to all secondary school children until 2005 when a targeted programme for those at higher risk of TB was introduced.<sup>1</sup>

The BCG vaccine has been administered more than 4 billion times. Adverse events in BCG administration are rare. In a study of 117,533 vaccines abscesses were reported in 0.02% of patients<sup>2</sup> and in another study the incidence of BCG abscess of 0.05%.<sup>3</sup>

There are no large randomised control trials investigating treatment of BCG abscesses.

A random, open, group control study of 33 patients compared isoniazid vs isoniazid/rifampicin; the combination therapy showed a higher cure rate with acceptable side effect profile.<sup>4</sup> This was the case with our patient. There are case reports of surgical excision or observation

In summary, we report a case of BCG abscesses as a rare adverse reaction to the BCG vaccine in an immunocompetent individual. These abscesses are currently responding to treatment with anti-tuberculosis medications. This case

highlights that MTB infection should be considered in patients who present cutaneous eruptions after receiving BCG vaccination.

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#### NOTIFIABLE VIRAL INFECTIOUS DISEASES: IDENTIFYING PATTERNS OF LEARNING IN CLINICAL DECISION SUPPORT

Editor,

Notifiable viral infectious diseases are a significant public health risk and it is important for frontline healthcare professionals to correctly detect and diagnose patients with these diseases. Healthcare professionals can use online clinical decision support resources to ensure that their knowledge of these diseases is evidence-based, practical and current.<sup>1</sup> However, there are few analyses on *how* doctors use clinical decision support tools at the point-of-care or how they use them in specific specialties - such as the field of infectious diseases.<sup>2,3</sup> The purpose of this report is to attempt to fill this gap in the literature by analysing the usage of a point-of-care decision support tool - BMJ Best Practice - in the field of viral infectious diseases.

In December 2018, we conducted an analysis of patterns of use on BMJ Best Practice related to notifiable viral infectious diseases over the previous 12 months.<sup>4</sup> We looked to see which of the notifiable viral infectious diseases generated the most usage on the clinical decision support tool and also which sections of the content were most used.

We found that the most common notifiable viral infectious diseases are the most used. The most viewed diseases include measles, hepatitis C, Ebola virus infection, hepatitis B, and mumps. With the exception of Ebola, these are amongst the most common notifiable viral infectious diseases worldwide.<sup>5</sup> Thus, it is not surprising that these are well-used. However, this also suggests that the content is being used to guide practical and common decisions that doctors and healthcare professionals take every day. The exception is Ebola – this is still a rare disease. However, it has received a great deal

of public attention and this may account for some of its popularity.

We also looked at what sections of the topics received most views. The sections of the topics with the most page views suggest a clear pattern of usage. The top two sections include the topic homepage and the “highlights-summary” page. However, this is to be expected as these are the first pages that users land on when they go to a topic.

Where they go next is of more interest; and here there are clear messages from the data. Six of the next ten most popular sections relate to diagnosis – these include the sections on “approach to diagnosis”, “history and examination”, “differential diagnosis”, “investigations”, “diagnosis: step-by-step” and “case history”.<sup>4</sup> Of the remaining, three relate to issues in management. These include the sections on “treatment options”, “treatment details”, and “approach to management”.

The data suggests that users are utilising the clinical decision support tool to aid their decisions in diagnosis and management of notifiable viral infectious diseases and that they need help in the basics of taking a history, conducting an examination, ordering tests and ruling in or out differential diagnoses.<sup>5</sup> Equally it may be that they want to confirm what they are doing is correct. The usage behaviour is largely related to the clinical workflow and suggests that users are using the tool at the point-of-care and not as a referential source that they might look at after the clinical event.

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**Ethical approval:** This was not sought as this was not a trial.

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## ANTIMICROBIAL PROPERTIES OF NATIVE ULSTER MACROFUNGI (MUSHROOMS AND TOADSTOOLS) TO CLINICAL PATHOGENS

**Editor,**

Previously, our research group has reported in the *UMJ* on various traditional Ulster cures and remedies (January 2009)<sup>1</sup> and on the physiological basis of the antibacterial activity emulating such cures and remedies (January 2009)<sup>2</sup>. In addition, we have examined the antimicrobial properties of sphagnum moss and its role in the Great War 1914-1918, relating to bandage preparation and wound dressings.<sup>3</sup> To date, we have not examined the antimicrobial properties of native macrofungi, namely the mushrooms and toadstools and therefore, it was the aim of the current study to examine the activity of native Ulster macrofungi on clinical bacterial and fungal pathogens.



Fig1a *Coprinus comatus*: Dick Culbert, B.C., Canada

Twenty-two species of native macrofungi were collected from woodlands throughout Northern Ireland (Table 1). *Lentinula edodes* (Shiitake mushroom) was also examined, given its popularity as a constituent of Asian (mainly Japanese) cuisine. Formal identification of all macrofungi examined was made by PCR-DNA techniques, employing fungal 18S rDNA universal ITS 1 and ITS 4 primers (ITS1: TCC GTA GTT GAA CCT GCG G and ITS4: TCC TCC GCT TAT TGA TAT GC). Aqueous and protein extracts (approx.1mg/ml) were obtained from freeze-dried preparations of each fungus. Six bacterial and one fungal pathogen were examined



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