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Bwrdd Iechyd Prifysgol
Bae Abertawe
Swansea Bay University
Health Board



Meeting Date	23 February 2023	Agenda Item	4.5
Report Title	Learning from the management of the Llwynhendy Tuberculosis outbreak		
Report Author	Keith Reid, Executive Director of Public Health		
Report Sponsor	Keith Reid, Executive Director of Public Health Richard Evans, Executive Medical Director		
Presented by	Richard Evans, Executive Medical Director		
Freedom of Information	Open		
Purpose of the Report	<p>This report sets out a current assessment of Swansea Bay University Health Board's position in relation to the recommendations arising from an external review of a community outbreak of tuberculosis (TB) in Llwynhendy, Carmarthenshire.</p> <p>The report makes a recommendation that a business case is developed for investment in TB services.</p>		
Key Issues	<p>The clinical TB service is currently adequate but is reliant on the goodwill of a small number of specialist staff and consequently is vulnerable.</p> <p>There is a lack of appropriate administrative support to managing the non-clinical aspects of the TB pathway.</p> <p>The pathway locally would benefit from a review, clarifying local responsibilities and additional targeted investment to make the service sustainable.</p>		
Specific Action Required (please choose one only)	Information	Discussion	Assurance
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input checked="" type="checkbox"/>
Recommendations	<p>Members are asked to:</p> <ul style="list-style-type: none"> Recommend <p>That the Regional Health Protection Forum is invited to develop a local model for the management of TB, supported by a business case, to identify the amount of additional resource required to establish a sustainable TB service in Swansea Bay UHB.</p>		

TITLE OF REPORT

1. INTRODUCTION

This report sets out a current assessment of Swansea Bay University Health Board's position in relation to the recommendations arising from an external review of a community outbreak of tuberculosis (TB) in Llwynhendy, Carmarthenshire.

The report is to provide the Committee with a summary of the findings of the Review and an assessment of the situation in SBUHB in relation to the key recommendations of the review panel.

2. BACKGROUND

An External Review of the management of the Llwynhendy Tuberculosis Outbreak was commissioned jointly by Public Health Wales (PHW) and Hywel Dda University Health Board (HDUHB) in September 2021.

This review followed concerns over the management of a cluster of active Tuberculosis (TB) cases occurring in the Llwynhendy area in Carmarthenshire that began in November 2010 and is ongoing. This cluster has been associated with at least 31 cases of active (infectious) TB and 300 cases of Latent TB Infection (LTBI). Screening has involved testing 663 individual contacts and 1950 members of the community.

The external review was recommended by PHW following a rapid internal review (unpublished) in 2019.

The purpose of the review was to examine:

- a) Whether the management of the outbreak was conducted in accordance with best practice guidance in place at the time of each phase of the outbreak;
- b) The effectiveness of the respective involvement of Public Health Wales and Hywel Dda University Health Board in the control of the outbreak and treatment of latent or active TB cases at each stage;
- c) The governance arrangements (including reporting and escalation) for informing Teams and Boards of the outbreak and providing assurance to the Boards of each organisation;
- d) A review of any reported cases of: 1. People who died where TB contributed to or caused the death, and 2. People that have developed active TB;
- e) The effectiveness of any policy(ies) relevant to TB disease prevention, treatment and control including the management of outbreaks applicable in Wales;
- f) The effectiveness of external expert advice [in the management of the outbreak].

The final report of the external review was published as part of the January 2023 Board meetings of both HDUHB and PHW. [External Review of TB Outbreak in Llwynhendy](#)

Review Recommendations

The Review made 7 principal recommendations and these are summarised as:

1. The outbreak has not yet concluded and there remains risk of further cases - the active disease in this population is predominantly pulmonary and therefore

more infectious. Delayed presentation in unrecognised cases may lead to further outbreaks and deaths and so there is a need for maintained heightened awareness amongst the public and their health care professionals.

2. Any future outbreaks should be overseen by PHW from the outset with an up to date TB-specific standard operating procedure for the conduct and recording of outbreak management. Management should include modern data analysis and Whole Genome Sequencing typing; the electronic capture of comprehensive contact networks of all cases; and social network analyses undertaken to ensure links between cases are uncovered quickly and easily.
3. Funding arrangements for the management of outbreaks of infectious diseases should be known so that there is no delay in implementing response measures.
4. The HDUHB TB service has improved but still has inadequacies. Remedial actions include: cross-cover arrangements to be in place for leave in order to prevent delays in treatment; pharmacy and administrative support needs improvement; and, succession planning for the TB Specialist Nurse.
5. At a national level, the Cohort Review Programme [needs to be supported with adequate funding for each contributing health board.
6. Welsh Government should support both the Cohort Review Programme and the proposal for a National Service Specification that includes the development of a TB pathway to tackle delayed diagnosis (e.g. investigating cough lasting longer than three weeks).
7. Wales does not seem to be properly prepared for the challenges of new migrants, refugees, and the occurrence of future drug resistance. These factors should be included in a future TB plan supported and funded by Welsh Government.

Implications for Swansea Bay University Health Board

There was a request to consider these recommendations in the light of the local situation in Swansea Bay University Health Board and whether any further action was required locally to mitigate any identified risks.

Although Wales has historically reported low levels of TB infection, the death rate from TB infection in Wales is twice as high as in England. TB in Wales is distributed similarly to the rest of the UK. TB rates are higher in immigrant populations and disease is predominantly Latent TB Infection (LTBI) which is associated with a risk of reactivation in those affected but is not infectious and thus does not pose an immediate risk to contacts.

The high levels of acute TB in the present outbreak and also high numbers of cases with LTBI detected through wider screening have been attributed to factors specific to the particular outbreak and issues with its management. There is a further hypothesis which has not received active consideration: that screening detected a mixture of cases associated with the index case and previously undetected community cases.

There is some residual uncertainty that the underlying risk of recurring outbreaks of TB in SBUHB may be higher than the headline TB incident figures might indicate.

Where screening is undertaken positive tests may occur at higher rates than would be expected in other parts of the UK.

Recommendation 1 - Need to promote awareness across clinical communities

The establishment of a Regional Health Protection Forum for Swansea Bay provides an expert group engaged in the surveillance of and response to infectious disease locally. This group would provide a suitable forum to sponsor a task and finish group to develop messaging to the local clinical community and wider public.

Recommendation 2 - Management of future outbreaks.

The Review report (p.22) contains a statement:

“The responsibility for the management of an outbreak of infectious disease lies initially with the Health Board and the local Director of Public Health.”

This statement is factually incorrect. Statutory responsibility lies with the Local Authority and with Public Health Wales. Welsh Government policy outlines a responsibility for the Health Board to support any response. Recent policy directions from Welsh Government following the formal Review of the National Health Protection System in Wales are seeking to establish an increased role for Local Health Boards, through the Director of Public Health, in co-ordinating Health Protection responses at a LHB footprint level. The intention is to build on experience during the COVID pandemic where Regional co-ordination of responses under Test, Trace and Protect (TTP) and other arrangements were regarded as effective and efficient.

The development of proposals for the Regional Health Protection arrangements is expected to occur during Q1 of FY 2023/24 and is supported by transitional funding from Welsh Government. There are active discussions underway on the structure and ways of working of a Regional Health Protection approach jointly between the Director of Public Health (SBUHB), the lead Consultant in Health Protection for South West Wales (PHW) and the two Directors of Public Protection of the local authorities (City and County of Swansea and Neath and Port Talbot County Borough).

Recommendation 3 and 4 – Access to funding and other resources and adequacy of current clinical service for TB patients

Currently there is a Consultant Physician in Respiratory Medicine who is identified as the clinical lead for TB. There are two respiratory nurses who each take a role in managing TB to provide for cross-cover. Clinic capacity has been kept under review with recent expectation and direction to LHBs on the provision of services and screening.

There is Consultant-led clinic held monthly and this has proven adequate to deal with complex cases requiring care direct from a specialist physician. Nurse led clinics provide the majority of care to patients with ongoing treatment needs and new referrals following testing – generally the work up of latent TB infection cases picked up through occupational screening, pre-treatment screening for those on clinical pathways, specialist clinical services and the Swansea Bay Health Access Team.

Testing is not the responsibility of the respiratory team and is delivered by other clinical services including the Health Access Team.

The situation in relation to Ukrainian refugees is complicated. There are around 600 known arrivals who have not been screened consistently. This is attributed in large part to a lack of administrative support to identify, call for appointments and chase those who do not attend. These refugees are not integrated into the NHS system and there is ongoing difficulty in managing the call/re-call and in co-ordinating across the healthcare system. This includes difficulties in tracking and linking with primary care locally and other agencies – an administrative function – for which there is no resource identified or allocated.

Currently 240 arrivals are awaiting Mantoux testing in the community. Responsibility for completing this work sits with the Health Access Team, however, the immunisation team have identified some capacity to assist although there is not currently a timetable for this. Only those with a positive Mantoux test will be followed up by the TB clinical team.

Management of a current infectious TB case in SBUHB with a large number of community contacts has highlighted some difficulty in managing effective contact screening (blood tests and Chest X-Rays). An intention to bring in an external provider to undertake the screening (similar to the community screening undertaken in Llwynhendy) has been proposed from within the local Incident Management Team. While there are differing views locally, this indicates both constraints in overall screening capacity within SBUHB and that the current clinical model is not responsive to the needs of the highest risk client groups. Despite ongoing efforts (which have been considerable) there has been an inability to provide screening in an effective model – ie one with which the contacts will engage. Some, perhaps most, of the inability to flex contact tracing approaches in response to differing client groups' needs is directly related to a lack of managerial and administrative support.

These vignettes highlight the difficulties in managing a clinical pathway that sits across different service delivery groups (in this case across Primary Care and Therapies and NPT and Singleton Delivery Groups) and/or where elements of patient administration are split between primary and secondary care.

However, maintaining timely contact tracing and prompt assessment of contacts who screen positive for TB infection are the hallmarks of an effective public health response to TB in our communities. Failure to achieve this contributes to risk that infectious individuals may not be identified or identified late with implications for onwards transmission.

Recommendations 5 and 6 – sit with Welsh Government. There is an intention for a formal review of the Communicable Disease Outbreak Control Plan for Wales during 2023. The newly established Health Protection function within Welsh Government will also consider the output of the Review in considering its current priorities.

Recommendation 7 – recent experience with arrivals from the Ukraine has been covered above. The screening of high risk individuals arriving into Swansea Bay in a consistent and timely fashion has been handicapped by a lack of administrative capacity allocated to the identification and tracking of this group across the healthcare system. The clinical burden of TB in arrivals from Ukraine has been significantly lower locally than anticipated and additional clinical capacity established specifically for this group is currently stood down.

The provision (number) and configuration of negative pressure rooms across SBUHB makes management of cases of drug resistant TB potentially disruptive to other services.

3. GOVERNANCE AND RISK ISSUES

Clinical risk associated with TB in the community has been highlighted above and is mitigated by our local surveillance system and the provision of contact tracing, assessment and treatment. There is also a level of risk associated with the reliance on a small number of individuals who deliver a specialised clinical service.

Further risk is associated with the observed difficulties in managing clinical pathways that span more than one service delivery group.

4. FINANCIAL IMPLICATIONS

Any proposals as a consequence of changes in service provision will be taken through the usual business case development and approval processes locally. There will be financial implications associated with additional resource to make our TB service more effective and sustainable. It is anticipated that these will be affordable within existing resource identified for health protection.

5. RECOMMENDATION

The Review into the management of the TB cluster centred on Llwynhendy has prompted a consideration of the readiness of SBUHB to respond to Tuberculosis incidents. While the epidemiology of the outbreak in Llwynhendy is significantly different to outbreaks in the rest of the UK there is reason to consider that similar circumstances might exist in SBUHB. Cases in SBUHB are already identified as being part of an extended cluster which has linked cases across South Wales and into the West Midlands. Consequently there is a need to consider our readiness to deal with a significant community outbreak.

A rapid appraisal suggests that SBUHB currently provides a good level of clinical service to patients with TB with limited resources. These resources are deployed flexibly but are reliant on the goodwill of a small number of individuals, which makes them vulnerable and limits capacity. Additionally, given the need to liaise with multiple agencies across sectors in the management of TB cases there is an identified need for administrative support to the service.

There is a need to consider how the Health Board can improve its readiness to deal with outbreaks of TB in a timely fashion. This is principally related to increasing administrative capacity available to organise and manage contact tracing and ensuring adequate community capacity to deliver appropriate testing (on a surge basis).

The Regional Health Protection Forum should be invited to develop a local model for the management of TB, supported by a business case, to identify the amount of additional resource required to establish a sustainable TB service in Swansea Bay UHB.

Members are asked to **Recommend** that the Regional Health Protection Forum is invited to develop a local model for the management of TB, supported by a

business case, to identify the amount of additional resource required to establish a sustainable TB service in Swansea Bay UHB

Governance and Assurance		
Link to Enabling Objectives (please choose)	Supporting better health and wellbeing by actively promoting and empowering people to live well in resilient communities	
	Partnerships for Improving Health and Wellbeing	<input checked="" type="checkbox"/>
	Co-Production and Health Literacy	<input type="checkbox"/>
	Digitally Enabled Health and Wellbeing	<input type="checkbox"/>
	Deliver better care through excellent health and care services achieving the outcomes that matter most to people	
	Best Value Outcomes and High Quality Care	<input checked="" type="checkbox"/>
	Partnerships for Care	<input checked="" type="checkbox"/>
	Excellent Staff	<input type="checkbox"/>
	Digitally Enabled Care	<input type="checkbox"/>
	Outstanding Research, Innovation, Education and Learning	<input type="checkbox"/>
Health and Care Standards		
(please choose)	Staying Healthy	<input type="checkbox"/>
	Safe Care	<input checked="" type="checkbox"/>
	Effective Care	<input type="checkbox"/>
	Dignified Care	<input type="checkbox"/>
	Timely Care	<input type="checkbox"/>
	Individual Care	<input type="checkbox"/>
	Staff and Resources	<input type="checkbox"/>
Quality, Safety and Patient Experience		
<p>Currently there are delays in contact tracing and testing of individuals at high risk of TB in our community. These delays are associated with an increased individual and clinical risk. These delays arise principally from difficulty in co-ordinating efforts to contact individuals and arrange timely testing and from poor flow of information across the system. Additional administrative resource would reduce these risks.</p>		
Financial Implications		
<p>The proposal for additional resource to support TB management is currently not quantified. There is a sum of money identified for the creation of a regional health protection function within SBUHB which would be a potential source of funding. Any proposal is likely to be for a recurrent allocation. An emergent proposal would follow current business case development processes.</p>		
Legal Implications (including equality and diversity assessment)		
No legal implications identified		
Staffing Implications		
<p>The proposal is for additional staff to support delivery of an effective community pathway for the identification of those at increased risk of TB by dint of exposure to an infected case or other high risk activity.</p>		
Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015)		
<p>Public Health approaches incorporate a prevention ethos and delivery is contingent on collaboration among partners to deliver better outcomes for our population. A</p>		

coproduction approach is integral to public health practice and seeks to involve communities and staff in designing services and programmes.	
Report History	No previous reports have been considered by the Committee.
Appendices	Appendix 1 – External Report