Worcestershire Acute Hospitals NHS Trust

Guidelines for Visual Screening for Patients Prescribed Ethambutol

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

This guideline is for use by the following staff groups:

TB Specialist Nurses
Respiratory Medicine Consultants
Infectious Diseases Consultants
Ophthalmologists
Orthoptists
Ophthalmic Nurses

Lead Clinician(s)

Dr John Gardner Sharon Ellson	Associate Specialist, Ophthalmology TB Specialist Nurse
Approved by *Ophthalmology Directorate Governance* on:	18th June 2020
Approved by Divisional Governance	24th Feb 2021
Approved by Medicines Safety Committee on: *Where medicines included in guideline*	14th April 2021
Review Date:	14th April 2024

This is the most current document and should be used until a revised version is in place:

Key amendments to this guideline

Date	Amendment	Approved by:
April 2021	New document approved	Medicines Safety Committee

Introduction

Ethambutol is an effective antibiotic used to treat mycobacterial infections, such as tuberculosis (TB). Optic neuropathy is a serious side effect of the drug. Ethambutol toxicity in adults is rare, occurring in about 1% of patients on the standard dosage of 15mg/kg/day, although the risk increases substantially with increased dose. Impaired renal function, hypertension and smoking may increase the risk. A higher risk of optic neuropathy has been reported in patients on long term ethambutol treatment for *Mycobacterium avium* disease, in patients with TB meningitis, and in patients with a family history of inherited optic neuropathy.

The onset of optic neuropathy is typically 2 to 8 months after starting ethambutol but may occur anytime from a few days to more than a year after starting. Symptoms of ocular toxicity are variable and can affect one or both eyes. They typically develop over a few days and may include loss of vision (either partial or complete), blurred vision, colour vision impairment, and "blind spots" in the field of vision (scotomata). On testing, abnormal colour vision may be seen before loss of visual acuity. The evidence for blue/yellow defects occurring earlier than red/green defects is inconsistent.

The visual impairment caused by ethambutol toxicity seldom completely recovers. Prompt cessation of the drug is essential in order to minimize permanent visual impairment, including the risk of blindness. If ethambutol optic neuropathy is suspected the drug should be discontinued immediately and patients referred urgently, both to the prescribing physician and to an ophthalmologist. However, there is no specific treatment. Loss of vision may continue to progress for some weeks after stopping ethambutol. It may be a few months before it is clear how much visual recovery there will be. In the period after stopping ethambutol, other causes of optic neuropathy may need to be considered, including isoniazid. In early optic neuropathy the nerve fibres are often swollen. Over the next few weeks to months, the thickness of the nerve fibre layer on optical coherence tomography (OCT) may reduce to a normal thickness before ending up as abnormally thin.

Patients taking ethambutol should be made aware of the potential side effects. They should be told that if they have relevant new visual symptoms, they should immediately stop taking the drug and then urgently contact the TB specialist nurse. This advice should be given verbally and via the patient information leaflet (see appendix 4). This should be documented in the patient's notes. The risk of significant permanent visual impairment is less if the patient has a sound understanding of the risks and can adequately report any visual symptoms if they occur. Patients with limited understanding or communication difficulties (e.g. young children, non-English-speaking patients, and those with learning difficulties or dementia) are therefore potentially at greater risk.

Published Guidelines

In the USA, the joint guidelines of the American Thoracic Society, Centers for Disease Control and Prevention and Infectious Diseases Society of America (2016) recommend baseline visual acuity (Snellen test) and colour discrimination tests followed by monthly colour discrimination tests during ethambutol use.

In the UK there is a lack of consensus on what assessments are needed for patients prescribed ethambutol:

- The Royal College of Ophthalmologists states that regular screening of adults and children taking ethambutol is not considered necessary but states that it is important to establish any history of eye disease and that a baseline 'visual assessment' should be arranged by the prescriber before the drug is taken.
- The National Institute for Health and Care Excellence (NICE) TB guidelines recommend the use of ethambutol as part of standard quadruple therapy but make no statement on visual assessments.
- The British Thoracic Society's TB drug monographs recommend a baseline check of visual acuity and colour discrimination. This is followed by a monthly symptom screen. If there are no complaints of visual disturbance, there should still be formal tests of visual acuity and colour discrimination at least every 6 months. Patients at a higher risk of ophthalmic toxicity (doses >15mg/kg, children and those with renal impairment) should have monthly testing of visual acuity and colour discrimination, as well as a symptom screen.
- The British National Formulary recommends visual acuity testing with a Snellen chart before treatment with ethambutol and recommends routine ophthalmological monitoring for children.
- Whittington Health NHS Trust recommends baseline visual acuity and Ishihara tests.

Worcestershire Guidelines for Visual Screening for Patients Prescribed Ethambutol

All patients prescribed ethambutol for TB are referred to the TB specialist nurse. *See below for guidelines regarding Non-Tuberculous Mycobacterial (NTM) Infection.*

The TB specialist nurse will undertake health screening and visual acuity (VA) testing using a Snellen chart within one week of the commencement of treatment. The results will be documented in the patient's record to provide a baseline for later comparison.

Health Screening for TB Patients

TB patients in either of the following two groups will be referred by the TB specialist nurse to the Eye Department (see appendix 2) within one week of starting treatment:

Group 1 - Patients with any of the following pre-existing eye conditions affecting either eye:

- High myopia - short sight of more than 6 diopters (spherical equivalent). *(This means that unaided vision will not be as sharp as possible until an object is closer than 17 cm from the eye.)*
- Known colour blindness
- Diabetic retinopathy, that has been under the Hospital Eye Service
- Glaucoma
- Macular degeneration with impaired visual acuity in either eye
- Personal or family history of optic nerve disease

Group 2 - Patients with any of the following current or previous health conditions:

- TB meningitis
- Multiple sclerosis
- Previous treatment with ethambutol

- Lifestyle suggestive of high risk of nutritional optic neuropathy, i.e. suspicion of poor diet, of higher than recommended alcohol intake or of heavy smoking. (Vaping is not a concern here.)
- History of head injury requiring at least one night stay in hospital. *(This is because of the possibility of previous traumatic optic neuropathy – at any time in the past.)*
- History of stroke

Visual Acuity Testing for TB Patients

The TB specialist nurse will measure Visual Acuity (distance vision with any distance glasses) with a Snellen chart and document it in the patient's record. This provides a baseline against which future comparisons can be made. See appendix 1 for test method.

Patients will be referred by the TB specialist nurse to the Eye Department (see appendix 2) if the VA in either eye is *both* worse than 6/9 *and* worse than 6/9 with pinhole. However, referral is not necessary for those with a past history of a stable long-term visual impairment in a single eye, e.g. history of amblyopia ('lazy eye') treated with patching in childhood, history of previous retinal detachment surgery, or history of a blocked retinal vein / artery.

Advice for All Patients Prescribed Ethambutol

For TB patients, this advice is given by the TB specialist nurse. For NTM patients this advice is given by the eye department. All patients will receive both verbal advice and a patient information leaflet (see appendix 4). They will be advised to self-screen for visual symptoms (as described in the leaflet). They will be advised that if they experience any relevant new symptoms, they should immediately stop taking ethambutol and urgently contact the TB specialist nurse. Patients with limited understanding or communication difficulties may need to be seen with an appropriate responsible adult. This adult may be able to help with self-screening, either in person, or by telephone. Ideally, self-screening would be done once a day, but once every 3 or 4 days would still be useful.

Patients experiencing symptoms consistent with ethambutol toxicity will be referred urgently by the TB specialist nurse to the 'Acutes Eye Clinic' (see appendix 2) where they will be assessed to determine whether the ethambutol is the cause. Assessment may involve further outpatient visits. When attending the eye clinic, patients should take their glasses with them (if worn). They may need to have eye drops, which may prevent them driving for a few hours.

Non-Tuberculous Mycobacterial (NTM) Infection

All patients with NTM who will receive ethambutol for more than 2 months will be referred by the prescribing consultant to an ophthalmologist who will promptly arrange appropriate screening. As this assessment is usually done prior to the commencement of ethambutol, the ophthalmologist will send a prompt report to the prescribing consultant.

The ophthalmologist's assessment may be arranged as a 'diagnostic outpatient appointment' that may be led by an orthoptist. Tests will include visual acuity, colour vision assessment and a baseline optic disc OCT (optical coherence tomography). The results from a diagnostic appointment will be reviewed by an ophthalmologist who will arrange further assessment (such as visual fields) if required.
The eye department will document the giving of verbal advice and the information leaflet (see appendix 4). Although the TB specialist nurses may not routinely see or follow-up NTM

patients, they will be a point of contact for them and they can refer them to the eye clinic if appropriate (see appendix 2).

Follow-up - Monthly Contact of TB Patients with the TB Specialist Nurse

Visual Symptoms

At the monthly contact with the TB patient, the TB specialist nurse will remind the patient to continue following the advice in the patient information leaflet regarding checking their eyes. Any patients *volunteering* symptoms consistent with ethambutol toxicity should immediately stop taking ethambutol. They will be referred urgently by the TB specialist nurse to the 'Acutes Eye Clinic' (see appendix 2) where they will be assessed to determine whether the ethambutol is the cause.

The following symptoms are **not** due to ethambutol. If they are concerned, patients should contact their optometrist or GP in the normal way.

- pain in the eye
- seeing 'floaters'
- seeing abnormal 'lights'
- blurred vision that clears on blinking or on resting the eyes
- straight lines appear bent
- double vision (seeing two separated pictures).

Screening for Visual Symptoms – Why this is Not Recommended

At the monthly contact with the patient, the TB specialist nurse will **not** routinely screen for visual symptoms for the following reasons:

- It may suggest to anxious patients that they have symptoms, of which they have not actually been aware.
- Despite patients being educated, they may feel the nurse is 'looking after them' so that they do not have to check their eyes between monthly nurse contacts.
- Symptoms may develop shortly after the contact and, despite education, patients may think they can wait until the next contact.
- For screening to pick up symptoms promptly, the patient might need to be assessed every 2 or 3 days, rather than once a month. This is not practical.

For these reasons vision 'self-screening' is preferred.

Vision Testing

At the monthly contact with the patient, the TB specialist nurse may occasionally judge that a repeat test of VA is appropriate. In general, however, symptoms occur before significant loss of VA so repeat testing is not routinely required.

Monitoring

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the Policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	These are the 'key' parts of the process that we are relying on to manage risk. We may not be able to monitor every part of the process, but we MUST monitor the key elements, otherwise we won't know whether we are keeping patients, visitors and/or staff safe.	What are we going to do to make sure the key parts of the process we have identified are being followed? (Some techniques to consider are; audits, spot-checks, analysis of incident trends, monitoring of attendance at training.)	Be realistic. Set achievable frequencies. Use terms such as '10 times a year' instead of 'monthly'.	Who is responsible for the check? Is it listed in the 'duties' section of the Policy? Is it in the job description?	Who will receive the monitoring results? Where this is a committee the committee's specific responsibility for monitoring the process must be described within its terms of reference.	Use terms such as '10 times a year' instead of 'monthly'.
Page 3	All TB patients referred to the TB Specialist Nurses will have a visual acuity test documented	Audit	Ongoing note review	Sharon Ellson	Ophthalmology Clinical Governance committee	Annual Report
Page 4	TB patients are referred to the eye clinic if the VA in either eye is both worse than 6/9 and worse than 6/9 with pinhole (exceptions allowed)	Audit	Ongoing note review	Sharon Ellson	Ophthalmology Clinical Governance committee	Annual Report

References

TB Drug monographs – Drug Monographs - Ethambutol. British Thoracic Society. www.tbdrugmonographs.co.uk (accessed 11/05/2020)

Royal College of Ophthalmologists statement on Ethambutol toxicity. 31/10/2017

Is It Necessary to Screen Children for Ethambutol Toxicity? Recommendations for Clinical Surveillance. RCOphth Document reference: 2010/PROF/121
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EyeWiki (American Academy of Ophthalmology) Ethambutol Optic Neuropathy (Last modified on February 10, 2020)

Tuberculosis Treatment and Chemoprophylaxis. Kelsey M., Kranzer K., Lim, A-N., Microbiology, April 2014. Version 1. Whittington Health.

Official American Thoracic Society / Centers for Disease Control and Prevention / Infectious Diseases Society of America Clinical Practice Guidelines: Treatment of Drug-Susceptible Tuberculosis. Nahid, P et al. 2016

Contribution List

This key document has been circulated to the following individuals for consultation;

Designation
All Members of Ophthalmology Clinical Governance Committee.
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This key document has been circulated to the chair(s) of the following committee's / groups for comments;

Committee
Dr Mark Roberts, Clinical Governance Lead, Infectious Diseases
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Appendix 1 - Testing Visual Acuity (VA) using a Snellen Chart

Definition of Snellen Acuity

The smallest line of letters that the patient can read (the VA) is expressed as a fraction, e.g. 6/18. The top number of the fraction refers to the distance the chart is from the patient (normally 6 metres) and the bottom number is the distance in metres at which a person without any visual impairment should be able to read that line of letters. The bottom number can usually be found above the line of letters on the chart.

Equipment

Either use a chart with internal illumination or ensure the chart is well lit - without reflections. A standard size ('6 metre') chart is ideal, but in a confined space one can use a half size ('3 metre') chart. Confusingly, a '3 metre' chart will typically be labelled to give results as though the test is being done at 6 metres. Thus, if a 3 metre chart has the top letter labelled '60' this letter corresponds to 6/60, not 3/60, and likewise for the letters on the lines below. It may help to place a reference mark on the floor at a distance of 6 metres (or 3 metres) from the chart, so that the patient can sit or stand with their eyes vertically above this mark.

A pinhole occluder is needed. If a patient has subnormal VA but can read more Snellen letters through a pinhole, the visual impairment is at least partly due to a corneal scar, a cataract or an uncorrected refractive error. Thus, a pin hole is useful if a patient has left his distance glasses at home.

If there is a language barrier or literacy problems, letter matching may be used. For this technique, the letters used on a Snellen chart are printed in a random order in a large font onto a laminated sheet and the patient is asked to point to the letter on the sheet that matches the letter on the chart that the tester is pointing to.

As an alternative to a Snellen chart, a logMAR chart may be used and logMAR scores recorded.

Procedure - Basic

Explain the procedure to the patient and the reason for undertaking it. Have the patient sit or stand at the correct distance from the Snellen chart. If the patient wears 'correction' (glasses or contact lenses) for distance (i.e. for driving or television) these should be worn during the examination.

Test each eye separately - start with right eye first. Instruct the patient to keep both eyes open, and to cover the left eye with an occluder (such as a piece of plain card) and to read aloud every letter on each line starting from the top. Encourage the patient to read as far down the chart as possible. Check that the left eye remains occluded ('no peeping'). Note the smallest line the patient can read correctly, and also the number of letters correctly read in the line underneath. Repeat the test for the other eye.

Record the VA for each eye, stating whether it is with correction or unaided, e.g. 'Right VA - 6/18 with contact lens', Left VA 6/24 + 2 unaided'. The '+ 2' indicates that the patient correctly read 2 letters on the line below the 6/24 line.

Procedure – When VA is worse than 6/60

If the top letter of the chart cannot be read, ask the patient to count the number of fingers you are holding up on each of a few occasions when you randomly hold up 2, 3 or 4 fingers at a standard distance from their eye, e.g. 30 cm. If the patient can count fingers consistently, record the VA in the notes as 'CF at 30 cm'.

If the patient cannot count fingers, wave your hand silently 30 cm from the patients face and check whether the patient can reliably tell you when the waving starts and when it stops. Your hand should not create a shadow over the patient's eye. A positive result is recorded as 'HM' (hand movements).

If the patient cannot see hand movements, briefly shine a bright light at his or her eye from a close distance and check if the patient can reliably tell you when the shining starts and when it stops. The result is recorded as 'PL' (perception of light) or 'NPL' (no perception of light).

(If more precision is desired, the following method of testing may be used with a 6 metre chart. For patients who cannot read 6/60, but who can count fingers, it is possible to continue testing by moving the patient closer to the chart, one metre at a time until the top letter can be seen - the VA is recorded as '5/60' or '4/60', etc.)

Procedure – Testing with Pinhole (only do this when VA is worse than 6/6)

If VA is worse than 6/6 but is at least Counting Fingers, test the eye with a pinhole occluder, repeating the basic procedure as above. The patient holds the pinhole occluder in front of any correction, if worn, so that the pin-hole is in front of one eye, while the other eye is occluded. (Check there is no 'peeping'.) The patient should make fine adjustments to the position of the pin-hole until they can best read the chart through it. If the pinhole helps, record the VA as before, adding 'PH' (pinhole), e.g. '6/12 + 2 PH'. If the pin-hole does not help, record as 'NIPH' (no improvement with pin-hole), e.g. '6/18 with glasses NIPH'.

Appendix 2 - Contacts

Eye Clinic for Screening at Commencement of Ethambutol
Please refer patients by email to the 'universal' eye department referrals email address: wah-tr.worcestershirehes@nhs.net .
Please use the header 'Ethambutol Screening'.

'Acutes' Eye Clinic at Kidderminster Treatment Centre
Please refer patients either by phone (01562) 512382 or by email to the 'universal' eye department referrals email address: wah-tr.worcestershirehes@nhs.net .
Please use the header 'Ethambutol Acutes Clinic'.

TB Specialist Nurse Telephone 01562 512316

Appendix 3 – Patient Information Leaflet

Ethambutol Treatment and the Risk of Optic Nerve Damage

What is ethambutol?

Ethambutol is an antibiotic medicine that works well against bacteria such as Mycobacteria. These bacteria can cause infections such as tuberculosis (TB). For best results, ethambutol is given in combination with other antibiotics.

What is the Optic Nerve?

The optic nerves carry the messages for vision from the eyes to the brain. Each nerve has about a million fibres but it is normal for us to lose some of these as we grow older. An optometrist (optician) or ophthalmologist (eye doctor) can check the nerves at the back of the eyes.

What is Optic Neuropathy?

Damage to the optic nerve is called optic neuropathy. It has many causes, such as glaucoma, poor blood supply and multiple sclerosis. It can also be a side effect of some medications, such as ethambutol. In the early stages of damage from ethambutol, the nerve does not work so well, but may still appear normal when examined. Some recovery may be possible. Later, the fibres in the nerve begin to die. Dead nerve fibres cannot be replaced so that the nerve gradually becomes pale ('optic atrophy').

What is the risk of ethambutol treatment causing Optic Neuropathy?

With modern care, the risk is thought to be about 1 in 100. The risk is less for those who only need to take ethambutol for 8 weeks, and greater for people who need it for longer than this.

Does anything increase the risk of Optic Neuropathy?

You could be at higher risk if:

- the prescribing doctor was not aware that you were losing weight, or that your kidneys were not working so well. (Your dose of ethambutol might need adjusting.)
- you have an optic nerve that is already affected by disease, or is at risk of damage due to poor diet, or due to your particular genes.
- there is something else causing stress to your optic nerves, such as smoking or taking particular prescribed medications (your pharmacist or doctor can advise you about this).

What should I avoid while taking ethambutol?

Avoid tobacco (the risk from vaping is thought to be much less). Carbon monoxide can damage the optic nerves, so if you use a gas or oil-fired boiler, or an open fire, you can

reduce the risk of this by using warning alarms. There might be a small risk from using chloramphenicol eye drops or eye ointment, and from quinine (which is usually taken for muscle cramp). Although the risk from these treatments is not proven, we suggest you either avoid them or discuss the risk with your GP in case an alternative treatment may be suitable.

How might Optic Neuropathy affect me?

Optic neuropathy affects the vision, which may become blurred or dim. Sometimes this is only noticeable in parts of the vision rather than in the 'whole picture'. Colours may seem less bright or 'washed out'. The loss of vision often starts in one eye but the other eye is at risk of losing vision soon afterwards. The loss of vision tends to develop over a few days, but the onset may appear to be sudden if the loss of vision is not noticed until it is already quite bad.

What about other eye symptoms?

The following symptoms are ***not*** due to ethambutol. If you get any of the following symptoms, do not contact the TB specialist nurse. If you are concerned, contact your optometrist or GP in the normal way.

- pain in the eye
- seeing 'floaters'
- seeing abnormal 'lights'
- blurred vision that clears on blinking or on resting the eyes
- straight lines appear bent
- double vision (seeing two separated pictures).

How should I check myself for Optic Neuropathy?

Find a suitable magazine (or wall calendar or something similar) and choose a particular bit of small print and a particular bit of large print and a particular multi-coloured picture. Use these as test 'targets' and use the same targets every time you check your eyes. Use a room with bright electric lighting, such as the kitchen. While wearing any appropriate glasses or contact lenses, check your vision every day, in each eye separately. Check your eyes one at a time by using a piece of card to cover the other eye. Do this for each of two tests:

Test 1. Look at the words in small print from a normal reading distance. Alternatively, look at the words in large print from a distance of about 3 metres. Check that your vision in each eye is as clear and sharp as you would expect it to be.

Test 2. Look at the multi-coloured picture and check each eye. Are the colours are as bright as you would expect them to be, or do they look dull or 'washed out'?

When you do these tests at the start of ethambutol treatment they will give you a 'baseline' for your eyes, showing you what is 'normal' for you. Repeat the tests each morning as 'self-screening'. If you notice any definite change, contact the TB specialist nurse (telephone 01562 512316). (If you are not sure, repeat the tests after an hour or two before deciding if you think there has been a definite change.)

What should I do if I find it difficult to check myself?

If you think 'self-screening' (checking your own vision) might be difficult for you, is there someone who could help you do it? Sometimes a telephone call reminder is all that is needed. Ideally, self-screening is done once a day, but once every 3 or 4 days would still be useful. You can also contact the TB specialist nurse for advice (telephone 01562 512316).

What should I do if I think I might be getting Optic Neuropathy?

You should immediately stop taking ethambutol and urgently contact the TB specialist nurse (telephone 01562 512316). At a weekend or on a bank holiday, stop taking ethambutol immediately and telephone on the next working day.

If I have to stop taking ethambutol what will happen next?

When you contact the TB specialist nurse, she will talk to you about your concerns. If appropriate you will be referred to the eye clinic for urgent cases ('Acutes') at Kidderminster Treatment Centre. In this clinic, your eyes will be examined to see if ethambutol is the probable cause of your symptoms, or whether there is another explanation. When attending the eye clinic, take your glasses (if you wear them). You may need to have eye drops, which may prevent you driving for a few hours. You may need further visits to an eye clinic (which may be in a different hospital).

The TB specialist nurse will get advice from the consultant and arrange for any necessary alternative treatment.

Does Optic Neuropathy recover when ethambutol is stopped?

In most cases there will be some recovery, but usually the vision does not return to being completely normal. Sometimes, loss of vision may continue to progress for some weeks after stopping ethambutol. It may be a few months before it is clear how much visual recovery will occur. Ethambutol optic neuropathy can cause permanent blindness but this is very unlikely if the ethambutol is stopped as soon as the loss of vision is noticed. However, it is possible that loss of vision could lead to loss of a driving license.

Is it safe to take ethambutol?

All medicines have possible side effects. In each case, we have to balance the possible risks against the expected benefits. The consultant will prescribe the lowest effective dose. If there are particular concerns, an eye doctor may be asked to check your eyes at (or

before) the start of ethambutol treatment. In most cases, the risk of optic neuropathy is low and the benefits of treatment make ethambutol the best choice.

Contacts

TB Specialist Nurse - Telephone 01562 512316

Acutes Eye Clinic at Kidderminster Treatment Centre - Telephone 01562 512382

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.

Please complete assessment form on next page.

NHS Worcestershire Acute Hospitals NHS Trust

Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form
Please read EIA guidelines when completing this form

Section 1 - Name of Organisation (please tick)

Herefordshire & Worcestershire STP		Herefordshire Council		Herefordshire CCG	
Worcestershire Acute Hospitals NHS Trust	X	Worcestershire County Council		Worcestershire CCGs	
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)	

Name of Lead for Activity	Dr John Gardner, Associate Specialist and Clinical Governance Lead, Ophthalmology

Details of individuals completing this assessment	**Name**	**Job title**	**e-mail contact**
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Date assessment completed			

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	Guidelines for Visual Screening for Patients Prescribed Ethambutol			
What is the aim, purpose and/or intended outcomes of this Activity?	Patient Safety			
Who will be affected by the development & implementation of this activity?	❑	Service User	❑	Staff
	X	Patient	❑	Communities
	X	Carers	❑	Other _____

	❑	Visitors	❑ ❑ ❑	
Is this:	X Review of an existing activity ❑ New activity ❑ Planning to withdraw or reduce a service, activity or presence?			
What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.	Multidisciplinary professional input. Patients using this service are invited to give feedback.			
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)				
Summary of relevant findings				

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale**. Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Age		X		
Disability			X	Patients with pre-existing visual impairment will require additional assessment. Patients with a history of stroke, significant head injury or multiple sclerosis will require additional assessment. Patients with some disabilities (e.g. memory loss or learning disability) may find it difficult to reliably follow the recommended instructions. Patients with severe hearing impairment may find it less easy to obtain telephone advice if they have concerns regarding their vision.
Gender Reassignment		X		
Marriage & Civil Partnerships		X		

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Pregnancy & Maternity		X		
Race including Traveling Communities			X	Non-English speaking patients who do not have access to someone who can interpret for them may be disadvantaged until arrangements can be made to provide an interpreter.
Religion & Belief		X		
Sex			X	Patients with known colour blindness will require additional assessment. This is much more common in men.
Sexual Orientation		X		
Other Vulnerable and Disadvantaged Groups (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)			X	Patients for whom there is a suspicion of poor diet, of higher than recommended alcohol intake or of heavy smoking will require additional assessment.
Health Inequalities (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)			X	Patients without access to a telephone may find it less easy to obtain advice if they have concerns regarding their vision.

Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
	Inability to read the Patient Information Leaflet.	Patients at risk (e.g. due to poor vision or language barrier) will be identified at time of leaflet issue. Leaflet may be read to them and/or supplied to a supportive adult (with	TB specialist nurses	on-going

		the patient's consent).		
	Patients with some disabilities may find it difficult to reliably follow the recommended instructions.	Patients at risk will be identified at time of leaflet issue. The information leaflet refers to the possible role of a supportive adult and it may be supplied to a supportive adult (with the patient's consent). Liaison with Learning Disabilities Team when appropriate. Discussion with prescribing doctor may be appropriate.	TB specialist nurses	on-going
	Non-English speaking patients who do not have access to someone who can interpret for them may be disadvantaged until arrangements can be made to provide an interpreter.	Following of Trust Policy regarding Interpreters.	Nursing and Administrative Staff in departments providing care	on-going
	Patients with severe hearing impairment may find it difficult to access telephone advice.	Patients at risk will be identified at time of leaflet issue. Alternatives (such as email or texting) will be considered.	TB specialist nurses	on-going
How will you monitor these actions?	Datix records of untoward events and 'near miss' events.			
When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)	At time of review of guidelines (in January 2024) or beforehand as needed if issues are raised by Datix reports or patient feedback.			

Section 5 - Please read and agree to the following Equality Statement

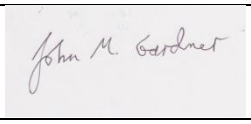
1. Equality Statement

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9

protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation

1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.

1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

Signature of person completing EIA	Sharon Ellson
Date signed	02/02/2021
Comments:	
Signature of person the Leader Person for this activity	
Date signed	2 Feb 2021
Comments:	

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	No
2.	Does the implementation of this document require additional revenue	No
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	No
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.