Local Procedure for Tinnitus Appointments

Scope:

This procedure has been written for the staff in the audiology department Salisbury District hospital to support them delivery a consistent service in the tinnitus clinic appointments.

Evidence:

It has been written using evidence based information from the current
NICE guidelines for Tinnitus 2020 (https://www.nice.org.uk/guidance/ng155),
British Tinnitus Association,
British Society of Audiology tinnitus in children practice guidance https://www.thebsa.org.uk/wp-content/uploads/2015/03/2015-Paed-Tin-Guidelines-FINAL.pdf,
Tinnitus and Hyperacusis Therapy Masterclass The Royal Surrey Guildford 2015,
Tinnitus and Hyperacusis Masterclass Ear Institute UCL 2017,
Fitting of Combination aids for Subjects with Tinnitus https://www.thebsa.org.uk/wp-content/uploads/2020/03/OD104-88-BSA-Combination-aids-practice-guidance.pdf
And with consideration to the new guidelines out for consultation The British Association of Audiologist Practice Guidance Tinnitus is Adults 2019 http://www.thebsa.org.uk/wp-content/uploads/2019/09/Practice-Guidance_Tinnitus-in-Adults_for-member-consultation_30AUG2019.pdf

Prior to appointment being sent:

Check the referral letter for appropriateness of referral, e.g. urgency/ more appropriate for ENT/ within catchment area. Determine the need for interpreter or other needed.

Check there is a recent audiogram, if not try to obtain An audiogram is needed even when there is no reported hearing loss in order to program an ear level sound generator. Audiological assessment should include PTA and tympanometry.

Check patients hospital records if available for background information on their general health, check Lorenzo for clinic letters, test results.

Prior to seeing patient:

Select the questionnaires you feel appropriate based on the referral letter and any other information you have obtained from the patients notes. Questionnaire scores can help determine the level of care needed and whether forward referral is required, e.g. CBT.

Questionnaires can be sent prior to the appointment via post or email. Let the admin staff know which ones to send, they can be found on the shared drive. Routine questionnaires used are:

Tinnitus Handicap Inventory (currently used due to the availability on Audit base). Appendix 5
Visual Analogue Scale for annoyance, loudness and QoL Appendix 4
Hospital Anxiety and Depression Scale Shared folder
Insomnia Severity Index Shared folder

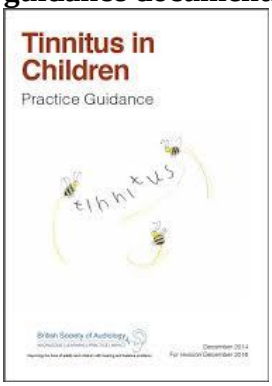
Also available are:

Modified Khalfa Hyperacusis Handicap Questionnaire. Shared folder
Hyperacusis questionnaire. Shared folder

Patient arrival:

Greet the patient in the waiting room and ask them if they are happy to complete the questionnaires you have selected prior to their appointment. If there is any hesitation and you feel the patient would rather not, then offer to complete them with the patient in the clinic room.

Children are not given questionnaires; they complete a VAS using the Thermometer scale for loudness, annoyance. See Tinnitus in Children practical guidance document.



http://www.thebsa.org.uk/wp-content/uploads/2015/03/2015-Paed-Tin-Guidelines-FINAL.pdf

Appointment structure:

Introduction and consent:

Invite the patient and family members into the room and explain the format of the appointment and gain their consent to proceed.

Counselling - information seeking:

Assess how tinnitus affects Qo,L, sleep and psychological impact. If there has been a delay accessing the service, aim to find out why they need to access care now, e.g. is it due to changes in lifestyle or health,

- onset: when was tinnitus first noticed; what are the associated clinical factors/triggers (noise trauma, stress, recent events, acute illness, other); was it a sudden onset or did symptoms start gradually with a continuous increase?
- Course and duration of tinnitus: Is the tinnitus progressive, regressive or stationary.
- Modulation: Can the tinnitus percept be modulated by: orofacial, cervical or eye movements, head positions, movements of the jaw, tension of jaw muscles, physical exertions?
- Impact: Is tinnitus bothersome/interfering with daily life (sleep-difficulties, task-interruptions,
- Fearful reactions, cognitive-attentional problems, negative affect, affecting sense of identity)?
  See appendix 1

Counselling - directive counselling

Using pictorial guides from the booklets, explain the mechanisms of hearing and tinnitus perception using the Jastreboff neurophysiological model, adapt as appropriate to each patient. The main points of the Jastreboff model need to be included for it to be deemed a modified version, which is appropriate for the current clinic setting.
For children:
N - normalize, i.e. we all get it
E - explain, simple explanation ‘noise of your ears working’
S - sound enrichment strategies
T - talking, needs to be a conversation

See appendix 2 for illustrations and words used in TRT counselling for adults. For children, Access ‘My World Paediatric counselling Tool from http//:Ida institute.com/tool_room/pediatric_Audiology/

Explain the audiogram to the patient and draw in how this can relate to tinnitus perception.

Explain the role of sound therapy to aid habituation to tinnitus.

Explain the importance of relaxation techniques to reduce the associated stress with tinnitus.

Allow the patient to ask any questions they have on the information given. Reassure the patient allowing them time to process the information. Involve the accompanying

person to ask questions.

Individual management plan:

Using the Category chart 0-4 as a guide, explain the option of sound enrichment that can be used by the patient at an ear level. Either hearing aid or worn sound generator See Appendix 3 for category chart

Explain/ demonstrate the use of table top sound enrichment and natural ways to enhance the sound environment. Reinforce the importance of not masking tinnitus but to find the mixing point whereby the volume is equal to the tinnitus.

Discuss the option of CBT for tinnitus and the procedure involved. Suitable for children over the age of 7 years.

Discuss the option of group CBT provided locally for anxiety and depression and the coping mechanisms that can be applied to the perception of tinnitus. CAMHS for children if appropriate.

Agree with the patient which option they would like to try

Hearing aids/ noise generator

Demonstrate deep breathing exercises with the patient.

Provide patient with our leaflet which will:

Signpost sound apps for tinnitus, including the relaxation apps such as Headspace.

Signpost to the Take on Tinnitus modules for reinforcement of information given today.

Signpost to the BTA web chat and telephone helpline for further support if needed.

Signpost to local Tinnitus support group

Signpost to local IAPT service.

Signpost to books on tinnitus and relaxation.

Signpost for ear protection.

Provide further information leaflets from the BTA to meet the individual needs, Easy Reading booklets are available for those with cognitive impairment, Key Stage booklets for children and leaflets are available in Braille from the BTA.

For children give them tinnitus activity books to complete, give a copy of the Tinnitus in the Classroom -Information Booklet for parents to discuss with teacher/SENCO (appendix 8 from the BSA Tinnitus in Children Practical Guidance) . Relaxkids.com for relaxation exercises/sound therapy.

Follow up

If fitting a hearing aid or noise generator, then book a tinnitus fitting appointment..

If no fitting of hearing aid or noise generator required then book a follow up appointment for 8 weeks to repeat the THI questionnaire to measure the outcome of our intervention.

Following fitting of a hearing aid book an 8 week follow up appointment to repeat THI questionnaire to measure the outcome of our intervention and to review hearing aid usage. Allows opportunity for further reassurance about tinnitus and answer patient questions.

Following a fitting of a noise generator book a 8 week follow up appointment to check usage/reassurance/respond to questions, complete a THI for during treatment and book a further appointment 3months. At 3 months repeat THI for final outcome. Reassure patient about level of usage which initially may be all day to; as and when needed and finally to not needed.

Reports

Complete a report using the Tinnitus template which includes the scoring scale for the questionnaires used. Reports should be sent to the referring doctor and copied to the GP and patient.

Onward referral

If the patient requires CBT for tinnitus, then a referral to a specialist unit is required and a request to the GP needs to be made to action this. Privately funded CBT is available in which remote sessions are offered.

If a patient demonstrates that they are struggling with mental health issues, then this needs to be highlighted to the GP immediately by telephone.

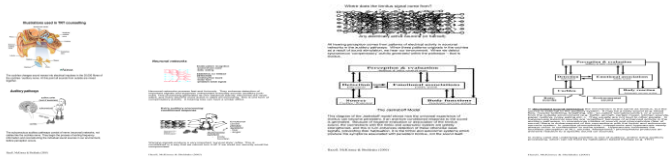
If a patient demonstrates that they are a high risk of suicide, then a call needs to be made to the hospital on call psych team for assistance. Patient can be taken to A&E to keep them safe.

Appendix 1

Structured tinnitus interview (Anderson et al 2005)

Background data (age etc.)
Hearing loss and use of hearing aids
Tinnitus localization
Tinnitus primary character
Duration of tinnitus
Events associated with onset of tinnitus
Tinnitus grading
Variation in tinnitus loudness
Attention directed toward tinnitus during an ordinary day
Most problematic situations associated with tinnitus
Time of the day most problematic
Possibility to do something to lessen the problems with tinnitus
Possibility to change the loudness of tinnitus
Situations when tinnitus is less problematic
Avoidance of situation and activities because of tinnitus
Psychological consequences of tinnitus
Sleep problems
Influence of background noise on tinnitus
Masking of tinnitus by background noise
Noise sensitivity
Influence of stress and fatigue
Influence of weather
Medication and their effect on tinnitus
Use of caffeine and its effect on tinnitus
Alcohol use and its effect on tinnitus
Tobacco use and effect on tinnitus
Role of relative or spouse on coping with tinnitus
Major or minor change in tinnitus characteristics since onset
Tolerance of tinnitus in relation to onset
Earlier or ongoing treatment for tinnitus and hearing loss
Perceived cause of tinnitus
Problems with headache
Dizziness
Muscular tension
Earlier or ongoing psychiatric treatments
Attitudes toward tinnitus
Attitude toward referral to psychologist
Presentation of a CBT model of tinnitus and check for acceptance of the model and approach to treatment.

Appendix 2



Appendix 3

Extracts from Jastreboff & Jastreboff Tinnitus Retraining Therapy for full text see https://www.audiology.org/sites/default/files/journal/JAAA_11_03_05.pdf

Patient categories

Category 0 consists of patients who do not have hyperacusis, nor any significant hearing loss and whose **tinnitus has little impact on their life**. For these patients, the directive counseling session, including the advice to avoid silence and to enrich their sound environment, is usually sufficient and there is no need for any instrumentation.

Category 1 consists of patients who have **significant tinnitus**, **but no hyperacusis and no subjective hearing loss**. For these patients, the most effective approach is the use of ***sound generators*** set at the level close to the mixing/blending point. This is the sound level corresponding to the beginning of partial suppression. Patients describe it as when the external sound and tinnitus can be heard separately, but start to interfere or intertwine with each other.

Category 2 consists of patients who have **significant tinnitus and significant subjective hearing loss**. For these patients to achieve improvement in both tinnitus and hearing with recommend ***hearing aids.*** We instruct the patient to wear them all the time while enriching their sound environment. It is stressed to the patient that sound is important for the treatment and not the hearing aids.

Category 3 consists of patients with **significant hyperacusis**, which is not enhanced for a prolonged period of time, as a result of sound exposure. Tinnitus may, or may not be present. Sound generators are necessary to help desensitize the auditory system and consequently to decrease / remove hyperacusis. The desensitization protocol begins with the sound level set close to, but clearly above the threshold of hearing. This level is increased during the treatment to the level appropriate to their tinnitus (if present).

Category 4 consists of patients who have **tinnitus and / or hyperacusis and exhibit prolonged worsening of their symptoms as a result of sound exposure**. This is the most difficult category of patients to treat, and the success rate is lower than in the other

four categories. In this case, we set the hypersensitivity of perception of any type, not just sound, the patients are advised to wear the devices for a week without turning them on. This is done in order to desensitize the patient's perception of the touch to devices in their ears. As the treatment progresses, the sound level in increased very slowly. These patients need continuous monitoring and typically exhibit profound phonophobia.

Specific issues of treatment of hyperacusis and phonophobia

In most cases, hyperacusis can be treated directly by a process of gradual desensitization of the auditory system. If hyperacusis is present, e.g. Categories 3 and 4, then it must be treated first, before the tinnitus. After the patient shows improvement in their hyperacusis, their tinnitus is addressed more directly. Frequently, however, as the patient gets the hyperacusis under control, the tinnitus becomes less of an issue. For the hyperacusis patient, it is even more important that for patients with tinnitus only to have an enriched sound environment in addition to the use of instruments. It is important to discontinue the overuse of ear protection, as it causes an increase in the sensitivity of the auditory system due to decreased auditory input.

In cases of unilateral deafness and tinnitus CROS, BICROS or Trans cranial stimulation combined with training improve space localization of the sound, is recommended.

Appendix 4

Questionnaires
https://www.researchgate.net/publication/230588350_Psychometric_Evaluation_of_Visual_Analog_Scale_for_the_Assessment_of_Chronic_Tinnitus

VAS for tinnitus

Please rank your tinnitus, on a scale of 1-10, with regard to severity, annoyance, and effect on your life. Please do not include hearing difficulties when you answer these questions.										
1. How strong or loud, was your tinnitus, on average, over the last month? "0" would be "no tinnitus" and "10" would be "as loud as a gunfire"										
0	1	2	3	4	5	6	7	8	9	10
2. How much has tinnitus annoyed you, on average, over the last month? "0" would be "not annoying at all", "10" woud be "as annoying as you can imagine"										
0	1	2	3	4	5	6	7	8	9	10
3. How much did tinnitus affect or impact your life, on average, over the last month? "0" would be "not at all", "10" would be "as big as an earthquake".										
0	1	2	3	4	5	6	7	8	9	10

Appendix 5

https://www.audiology.org/sites/default/files/journal/JAAA_09_02_10.pdf

Tinnitus Handicap Inventory

Instructions: The purpose of this questionnaire is to identify problems your tinnitus may be causing you. **Please Circle Yes, Sometimes, or No for each question**. Do not skip a question.

1F. Because of your tinnitus is it difficult for you to concentrate? **Yes No Sometimes**
2F. Does the loudness of your tinnitus make it difficult for you to hear people? **Yes No Sometimes**
3E. Does your tinnitus make you angry? **Yes No Sometimes**
4F. Does your tinnitus make you feel confused? **Yes No Sometimes**
5C. Because of your tinnitus do you feel desperate? **Yes No Sometimes**
6E. Do you complain a great deal about your tinnitus? **Yes No Sometimes**
7F. Because of your tinnitus do you have trouble falling to sleep at night? **Yes No Sometimes**
8C . Do you feel as though you cannot escape your tinnitus? **Yes No Sometimes**
9F. Does your tinnitus interfere with your ability to enjoy social activities (such as going out to dinner, to the movies)? **Yes No Sometimes**
10E. Because of your tinnitus do you feel frustrated? **Yes No Sometimes**
11C . Because of your tinnitus do you feel that you have a terrible disease? **Yes No Sometimes**
12F. Does your tinnitus make it difficult for you to enjoy life? **Yes No Sometimes**
13F. Does your tinnitus interfere with your job or household responsibilities? **Yes No Sometimes**
14F. Because of your tinnitus do you find that you are often irritable? **Yes No Sometimes**
15F. Because of your tinnitus is it difficult for you to read? **Yes No Sometimes**
16E. Does your tinnitus make you upset? **Yes No Sometimes**
17E . Do you feel that your tinnitus problem has placed stress on your relationship with members of your family and friends? **Yes No Sometimes**
18F. Do you find it difficult to focus your attention away from your tinnitus and on other things? **Yes No Sometimes**
19C. Do you feel that you have no control over your tinnitus? **Yes No Sometimes**
20F. Because of your tinnitus do you often feel tired? **Yes No Sometimes**
21E. Because of your tinnitus do you feel depressed? **Yes No Sometimes**
22E. Does your tinnitus make you feel anxious? **Yes No Sometimes**
23C . Do you feel that you can no longer cope with your tinnitus? **Yes No Sometimes**
24F. Does your tinnitus get worse when you are under stress? **Yes No Sometimes**
25E . Does your tinnitus make you feel insecure? **Yes No Sometimes**