

James Lind Alliance Hyperacusis PSP. Total number of verified uncertainties from this PSP = 85. Details for Top 28 questions appear first. For details of ALL questions submitted to the PSP, see later in this spreadsheet

JLA question ID	Indicative uncertainty	Explanatory note	Date of priority setting workshop	Rank of the uncertainty at the final workshop.	Evidence
IU18	What is the most effective treatment approach for hyperacusis in children?	See original submissions for examples	23-Jul-18	1	
IU39	What is the prevalence of hyperacusis in a general population and other specific populations (e.g. people with autism, mental health issues, learning disabilities, hearing loss)?	See original submissions for examples	23-Jul-18	2	
IU1	Are there different meaningful types of hyperacusis?	See original submissions for examples	23-Jul-18	3	Fackrell, K., Potgieter, I., Shekhawat, G. S., Baguley, D. M., Sereda, M., & Hoare, D. J. (2017). Clinical Interventions for Hyperacusis in Adults : A Scoping Review to Assess the Current Position and Determine Priorities for Research. BioMed Research Int
IU19	What is the essential knowledge/training required for health professionals to appropriately refer or effectively manage hyperacusis?	See original submissions for examples	23-Jul-18	4	
IU22	Which treatment approaches are most effective for different types or severities of hyperacusis?	See original submissions for examples	23-Jul-18	5	
IU75	Is hyperacusis due to physical or psychological issues or is it a combination of both?	See original submissions for examples	23-Jul-18	6	
IU24	Which psychological therapy (e.g. counselling, Cognitive Behavioural Therapy, mindfulness) is most effective for hyperacusis?	See original submissions for examples	23-Jul-18	7	Fackrell, K., Potgieter, I., Shekhawat, G. S., Baguley, D. M., Sereda, M., & Hoare, D. J. (2017). Clinical Interventions for Hyperacusis in Adults : A Scoping Review to Assess the Current Position and Determine Priorities for Research. BioMed Research Int
		See original submissions for examples	23-Jul-18		Jüris, L., Andersson, G., Larsen, H. C., & Ekselius, L. (2014). Cognitive behaviour therapy for hyperacusis: A randomized controlled trial. Behaviour Research and Therapy, 54, 30–37.
IU84	What management approach for hyperacusis is most effective for adults/children with autism?	See original submissions for examples	23-Jul-18	8	Fackrell, K., Potgieter, I., Shekhawat, G. S., Baguley, D. M., Sereda, M., & Hoare, D. J. (2017). Clinical Interventions for Hyperacusis in Adults : A Scoping Review to Assess the Current Position and Determine Priorities for Research. BioMed Research Int
IU27	What is the best way of using sound in therapy for hyperacusis?	See original submissions for examples	23-Jul-18	9	
IU85	Which self-help interventions are effective for hyperacusis?	See original submissions for examples	23-Jul-18	10	
IU51	What are the risk factors for developing hyperacusis or making it worse?	See original submissions for examples	23-Jul-18	11	
IU5	Which interventions in a school setting are useful for children with hyperacusis?	See original submissions for examples	23-Jul-18	12	Rosing, S. N., Schmidt, J. H., Wedderkopp, N., & Baguley, D. M. (2016). Prevalence of tinnitus and hyperacusis in children and adolescents: a systematic review. BMJ Open, 6(6), e010596. https://doi.org/10.1136/bmjopen-2015-010596
IU29	Which drugs are effective for hyperacusis?	See original submissions for examples	23-Jul-18	13	
IU81	Which criteria should be met to diagnose hyperacusis in adults/children?	See original submissions for examples	23-Jul-18	14	
IU14	What is the most effective treatment approach for hyperacusis in adults?	See original submissions for examples	23-Jul-18	15	

IU69	Is hyperacusis related to physical changes in the ear or brain?	See original submissions for examples	23-Jul-18	16	
IU60	Is there an association between hyperacusis and other ear-related conditions (e.g. superior canal dehiscence syndrome, Meniere's, Waardenburg syndrome, vertigo, vestibular migraines)?	See original submissions for examples	23-Jul-18	17	
IU71	What area(s) of the brain and patterns of activity is/are associated with hyperacusis?	See original submissions for examples	23-Jul-18	18	
IU58	What is the relationship between mental health and hyperacusis?	See original submissions for examples	23-Jul-18	19	
IU80	What is the best way to differentiate hyperacusis from other hearing conditions (e.g. recruitment, misophonia, Meniere's, tinnitus)?	See original submissions for examples	23-Jul-18	20	
IU20	What care is most effective for recent onset/acute hyperacusis?	See original submissions for examples	23-Jul-18	21	
IU50	Can noise exposure cause hyperacusis (or make it worse)?	See original submissions for examples	23-Jul-18	22	
IU82	What are the 'red flags' for serious underlying conditions in hyperacusis?	See original submissions for examples	23-Jul-18	23	
IU54	What is the association between hyperacusis and dementia?	See original submissions for examples	23-Jul-18	24	
IU43	Does avoidance of sound improve hyperacusis or make it worse?	See original submissions for examples	23-Jul-18	25	
IU70	Does nerve damage cause the pain associated with hyperacusis?	See original submissions for examples	23-Jul-18	26	
IU59	Is hyperacusis linked to other sensitivities/conditions?	See original submissions for examples	23-Jul-18	27	
IU34	Would restoring hearing (e.g. regenerating nerve cells) improve hyperacusis?	See original submissions for examples	23-Jul-18	28	

CODE	INDICATIVE UNCERTAINTY	ORIGINAL UNCERTAINTY	SOURCE OF UNCERTAINTY										EVIDENCE		
			Contributing raw submissions	Healthcare professionals	Patients	Parents	Carer	Family/ Friends	Education	Other	N/A	Why is there uncertainty?	Systematic reviews that need updating or extending	Evidence from other reliable sources (guidelines, scoping reviews)	Ongoing/completed controlled trials
151	Are there different meaningful types of hyperacusis?	<p>Could current healthcare services be improved by providing a clearer definition of diagnosis for people who experience sensitivity to sound of any one time or ear problems vs psychological problems</p> <p>Is there a universal definition of hyperacusis?</p> <p>Are there any subtypes of hyperacusis?</p> <p>What are the effects of noise for intervention?</p> <p>A lot of people with normal hearing find certain noises quite unpleasant eg. the scraping of chalk on a blackboard/ sound of rubbing on a balloon/high pitched squeaking - is hyperacusis simply an even greater sensitivity related to the same cause?</p> <p>Do different causes result in different mechanisms of hyperacusis?</p> <p>Is hyperacusis in that sense also a sensation like a smell rather than a condition in its own right?</p> <p>3. Would the field (and patients) benefit from widening the subcategories (e.g. with or without tinnitus, with/without reactive tinnitus, with or without pain...)? That might aid in studies as developing treatments that work better in some types of patients.</p> <p>How to separate true hyperacusis from startle and being frightened by noise</p> <p>The UK test is confused and basically diagnoses everyone with some DSD with hyperacusis when in fact there probably are several different forms of DSD (not just hyperacusis, misophonia and phonophobia). Instead, the patients should describe their symptoms and then there are a different array of different diagnoses.</p> <p>The bigger question of all is where you get that 8% number and why on earth someone thinks it would be productive to continue to lump someone with sound sensitivity with people who have pain from every day sounds. I think we should focus on a specific definition and come up with a number that is real which is somewhere near 8% and probably somewhere near 1%.</p> <p>I would like to know what it is about this small group of children which makes them so resistant (personality, genetics, damage within the auditory system) to treatment. Answer to this question may also give us insight into the underlying mechanism, identify at risk children who may not be candidates for treatment options we currently have available and to look for other ways of helping these children.</p> <p>When a child has hyperacusis is there a difference in severity with different syndromes and developmental age</p> <p>How can we better characterise the sub-forms of hyperacusis?</p> <p>How many variations of hyperacusis are there - and what are their characteristic symptoms?</p> <p>It would really help me if my sons diagnosis in some way quantified what he experiences - so could they give a grading of the condition?</p> <p>Why can't we have a consistent definition of hyperacusis, and perhaps categories that are very specific, separating hyperacusis subtypes from other conditions?</p> <p>What are the underlying mechanisms of hyperacusis and are they different depending on the cause? It seems quite likely that for some it originates in the nerves, for some the ears, and for some the brain. We need to determine the physical underlying mechanism and how they might differ from one person to the next and what we can do about it.</p> <p>Why do we continue to allow people to have such varied definition of hyperacusis, and interchange the terms hyperacusis, phonophobia, misophonia, and sound sensitivity? There needs to be specifications such as "pain on two or more frequency is lower 90 dB" to prevent some of the waffle things the practitioners do that harm their patients.</p> <p>Well first I don't believe you can answer any questions about the management of hyperacusis without defining it and having everyone working with the same definition. I think you have to precisely define hyperacusis and then I understand that there are likely to be so different types from different underlying mechanisms.</p> <p>One question might be, "how does hyperacusis caused by a ear and ear accident differ from hyperacusis caused by noise, in terms of the physical mechanisms involved and how they might be treated."</p> <p>What common factors do sufferers from hyperacusis have, that could point to a cause?</p> <p>Difference between tinnitus, tinnitus and hyperacusis</p> <p>How can you prevent something that is still so unclearly defined?</p> <p>Should hyperacusis be categorised differently based on its underlying causes rather than assuming they're all related? (ie the symptoms better mitigate for the cause?)</p> <p>5. Would new, more direct terminology for hyperacusis, separate from tinnitus terminology, improve clinician, public, and patient understanding of the condition? Ear pain and lasting injury sensations (whether or not it is to actually damage) are described with more pleasant words such as "throbbing", "vibrating up" and "bad day". Misophonia (classically a congenital condition with a primary complaint of rage from specific sounds) is used to describe discomfort or pain from sources to sound. However terminology used for chronic pain may be more appropriate for this phenomenon as discomfort/pain is often the primary complaint, not emotion.</p> <p>1. Should there be an increase in the breadth and dimensions of hyperacusis subcategories in order to aid mechanism research that may lead to targeted treatments? Yes, for example, has every sub-type and the dimension of severity been very helpful to consider</p> <p>Are there different types of hyperacusis that require different approaches to treatment?</p>	31	9	16	2	1	0	1	1	1	1	No systematic reviews, scoping reviews or guidelines identified.		
152	Does diet have an effect on hyperacusis?	<p>Does vitamin deficiency cause hyperacusis?</p> <p>Do antioxidants reduce the incidence of hyperacusis?</p> <p>What can influence the onset of hyperacusis? Alcohol?</p> <p>I've noticed I can't eat certain things or drink certain things without a guaranteed flare-up where everything becomes so very much worse. What should be avoided, and why do those foods cause flares? For me I've noticed cherry pop, his, jelly, Hysteria / Goleks, cornucopia, Aard, All make my ears break into horrible horrendous agonising sensations of misery, intensified hyperacusis with pain. As to how to do better after consume</p> <p>What does ACTA IV do about three weeks worth of the symptoms) had for four years were mostly alleviated. Antihistamin is the main ingredient. Can more research be done on this and the word spread about treatment?</p> <p>Does vitamin deficiency cause hyperacusis?</p> <p>Does ultra flavonoid help or hurt, just the end of the lemon?</p> <p>Can reducing caffeine, for example, help reduce hyperacusis?</p> <p>Do flavonoids help?</p> <p>Can diet help to prevent hyperacusis development?</p> <p>Can exercise assist and offset noise?</p> <p>Does nutrition and diet have a role in the cause of hyperacusis?</p> <p>Can hyperacusis be prevented with diet and nutrition?</p> <p>Can hyperacusis be prevented with good hydration?</p> <p>Do anti-inflammatory foods help prevent hyperacusis?</p> <p>Does diet affect hyperacusis?</p> <p>Are the dietary recommendations?</p> <p>Does certain things (e smoking, drinking alcohol, illegal drug use, eating certain foods) make this condition worse.</p>	17	5	9	0	0	3	0	0	0	0	No relevant systematic reviews, scoping reviews or guidelines identified. Reliable up-to-date scoping review revealed some evidence for continuing uncertainties about effects of diet.	Fackrell, K., Proigster, I., Shethkumar, G. S., Bagley, D. M., Senda, M., & Hoare, D. J. (2013). Clinical Interventions for Hyperacusis in Adults: A Scoping Review to Assess the Current Position and Determine Priorities for Research. <i>BioRxiv Research International</i> , 2012. https://doi.org/10.1101/2012122315	
153	Does exercise/physical activity have an effect on hyperacusis?	<p>Are there a preventative measures (dietary, diet supplements, exercises, etc.) that I can adopt to reduce or eliminate the incidents of hyperacusis?</p> <p>How does exercise affect hyperacusis?</p>	8	0	3	0	0	0	0	0	0	No relevant systematic reviews, scoping reviews or guidelines identified.			
154	Are online treatments effective for hyperacusis?	<p>How useful / effective is online treatment for hyperacusis?</p> <p>Is there online CBT delivered for people with hyperacusis that has been shown to work?</p> <p>Could I get help/treatment on line without going into a hospital?</p> <p>Can apps help?</p> <p>we mainly use hearing therapy, but tinnitus has recently moved into the world of apps and self care, would there be any scope to do this for hyperacusis?</p> <p>Could an app be developed that allows people to perform a self test and to send the results for analysis.</p> <p>Could cognitive behavioral therapy with doctors who are experienced in treating hyperacusis be offered and effective via internet?</p> <p>More research into online or app based self help for younger people</p> <p>Can these apps be used to manage hyperacusis?</p> <p>Can mobile phone apps be used to manage hyperacusis?</p> <p>Can mobile phone apps be used to manage hyperacusis for people outside of cities?</p>	12	6	6	0	0	0	0	0	0	No relevant systematic reviews, scoping reviews or guidelines identified.			
155	Which interventions in a school setting are useful for children with hyperacusis?	<p>What interventions work best in helping children to continue to learn and cope with noise in the classroom?</p> <p>Should children with hyperacusis receive any additional support or accommodations at school?</p> <p>What support is there to school staff about hyperacusis?</p> <p>What information can be given to schools?</p> <p>Should we target hyperacusis/phonophobia/education establishments?</p> <p>School are at a loss - simply doesn't cope in classrooms and defends nearly constantly. When moving between classrooms he has been observed dropping his hands. His hyperacusis seems to also cycle in terms of its severity with his mood.</p> <p>How can schools help -</p> <p>Are schools too noisy?</p> <p>What can be done to reduce noise in the classroom?</p> <p>What adjustments are being made to contemporary UK classrooms in response to hyperacusis diagnosis?</p> <p>How effective are those UK contemporary UK classrooms adjustments?</p> <p>What can schools do to help children with hyperacusis find help?</p> <p>How can schools help/better educated to support the child in school during the treatment of a child with hyperacusis?</p> <p>Does positive empathetic support in school improve/improve treatment outcomes?</p> <p>What can a child expect a school to do in order to make it easier to cope with acute hearing?</p> <p>How can you best manage hyperacusis in school?</p> <p>Could schools have school nurses advising on this?</p> <p>More support within the education system, and school environment, which can be very noisy most of the time, including teaching staff retraining from shouting in class</p> <p>Rate of educating school nurses in managing hyperacusis, does this improve outcome for children?</p> <p>How to better educate schools?</p>	22	8	1	8	3	0	0	0	0	0	No relevant systematic reviews, scoping reviews or guidelines identified.		
156	Which hearing aid settings for managing hearing level are safest for people with hyperacusis?		10	0	0	0	0	0	1	0	0	No relevant systematic reviews, scoping reviews or guidelines identified.			

1210	<p>What is the prevalence of hyperacusis in a general population and other specific populations (e.g. people with autism, mental health issues, learning disabilities, hearing loss)?</p>	42	12	21	2	0	0	2	1	4																			<p>No relevant systematic reviews, scoping reviews or guidelines identified. Relevant systematic review has reviewed some evidence of prevalence in children but needs updating.</p>
	<p>Are there any patterns in how it progresses? What is the natural progression/trajectory? Is there an association between hyperacusis and other childhood developmental disorders including autism? Is it a widespread enough condition to be researched in the public domain and taken seriously? Is there a greater incidence of people who have a sudden loss and hyperacusis? What % of the population is affected? Does better epidemiological information on it, is still unclear as to how many people are affected. How many people have grown up going to the job, restaurants because there are so many children screaming and being allowed to by their parents, or loud selfish adults with no volume control. Sometimes the pain is so bad I just leave. What is the suicide rate for people with hyperacusis? How often do people who work in loud settings get hyperacusis? What percentage of those suffering hyperacusis also have chronic inflammatory response syndrome(CIRS)/histamine illness, a genetic condition affecting up to 25% of the population, depending on exposure to water-damaged buildings, Lyme and/or legionnaires, where sensitivity to sound, light, etc. are known symptoms/effects? What percentage of people with hyperacusis have elevated GAD-65 anti-bodies which can affect GABA neurotransmitters and make them hyper-sensitive? What are the percentages of or mortality across these 3 conditions (hyperacusis, hearing loss and tinnitus)? What is the area distribution or an effect? Can it be treated by diet and stress diet for both hyperacusis? Is it a condition for children w/ unilateral hearing loss (don't know where sound come from.) Is it seen more often in children with hearing difficulties (and in autism) Is it seen more often in children with autism. How common is it among children with hearing difficulties? Lot of research is needed in this area in children as the prevalence of hyperacusis is increasing and we still don't understand why some children get it and why it is common to only certain groups like Autism and better management options Is hyperacusis more common in people who suffer with anxiety or stress related mental health problems? Are there some groups of people who have more chance of developing it than others? How common is it? Why, after being in a loud environment such as a speaker, does one person come away with tinnitus and hyperacusis and another not? Does hyperacusis lead to an increased risk of suicide? Children with one ear often report hyperacusis, what is the connection of hyperacusis with one ear? What is the prevalence with and without hearing loss? What is the prevalence of tinnitus in hyperacusis? Is more common in people with hearing damage? How often does it affect only one ear? (An audiologist told me it is usually bilateral, but mine is in just one ear.) Why, out of 1000 people exposed to the same loud noise in a 200MHz, do only a few people get hyperacusis? Is there a connection in involvement of cochlear and/or as measured by otoacoustic emissions failure but near normal/normal behavioral hearing assessment in children presenting with increased sensitivity to sounds? Is hyperacusis more prominent with people who work in loud settings? Is hyperacusis common for children born with autism? What percentage of the population have ever heard of hyperacusis? Does noise from fireworks, especially for hyperacusis, have a what proportion of sufferers have been? Why do children get hyperacusis? How many people are known to suicide? How many patients are born with this disorder? How much tinnitus noise is present in hospitals, schools and places of work? Is it more prevalent with certain co-morbidities. Is what age is it likely to be identified as a problem? I only was identified as deaf in my 40s.</p>																												<p>Reung, S. N., Schmidt, J. P., Waddenberg, N. & Baguley, D. M. (2014). Prevalence of tinnitus and hyperacusis in children and adolescents: a systematic review. <i>BMJ Open</i>, 8(6), e005296. https://doi.org/10.1136/bmjopen-2013-005296.</p>
1240	<p>Is there an association between hearing loss and hyperacusis? Is there a link between acoustic damage and hyperacusis. Does hearing loss cause hyperacusis? Does hyperacusis only affect those who have nerve deafness? If so, does the degree of deafness, make the sensitivity worse? How is it related to hearing loss? How is it related to tinnitus? Is there a causal link between hyperacusis, hearing loss and tinnitus? Can it be triggered going deaf to high frequencies? Is hyperacusis linked to progressive hearing loss? What is the relationship between hyperacusis and hearing loss? Is hyperacusis primarily caused by loss of sensory hair cells, or by loss of nerve fibers and nerve cells? How long does it take to start within the symptoms of hyperacusis following neurological hearing loss? Does it indicate hearing loss? What is the association between hyperacusis and hearing loss? Is hyperacusis a symptom of hearing loss? Is hyperacusis the result of damage to the ear (e.g. inner hair cells)? Hyperacusis the result of the brain "turning up the volume" too much - i.e. over-reacting to hearing damage or hearing loss? Is hyperacusis more commonly associated with certain forms of hearing loss e.g. conductive loss or sensorineural. Does hearing loss cause hyperacusis? Does hyperacusis occur for persons with normal hearing as well? Does hearing loss cause hyperacusis? If you find yourself with hyperacusis, does that mean you have suffered from permanent noise damage in some way or another? Who do most people who get hyperacusis from loud noise not have detectable hearing loss? Is increased sensitivity to noise evidence warning of the onset of deafness. Is it linked to hearing loss. Do we have malformations in the ear? Is the hair cells or the nerve cells that is causing it. Connection to hearing loss. Tinnitus & deafness seems to have heightened my sensitivity to noise - is this usual? Can tinnitus even mild hearing loss, lessen the chance of developing hyperacusis? Does hearing loss cause hyperacusis? Does hidden hearing loss cause hyperacusis? I haven't heard of hyperacusis before but have always had an intolerance to certain noises. I assumed it was related to my lifelong single-sided deafness. Could this be the case? Is tinnitus relevant to hyperacusis? My hearing system gets worse and (hearing loss) over time as a result of aging and exposure to sound - is this degenerative process any different for hyperacusis sufferers? It is useful and essentially accurate to tell a young person having this disorder that he/she is far more prone to hearing loss than others? Does one-related hearing loss exacerbate the condition? Does the loss of hearing exacerbate the possibility of having hyperacusis?</p>	41	4	27	1	0	1	4	2	2																			<p>No relevant systematic reviews, scoping reviews or guidelines identified.</p>
1241	<p>Is peer support (e.g. support groups, mentors, helpline) effective for management of hyperacusis? Do support groups work? Support groups for parents. Do those who experience hyperacusis benefit from alternative support groups? Students that I have had become quite isolated and struggle to cope at times. Information on coping strategies would help them. Even self help group therapy to share experiences with others would help a great deal. Should there have a awareness centre that had suffered from it to help them through? What are barriers / difficulties/ other things help? What about having people with knowledge/lived experience/care in the local community help educate organisation etc?</p>	8	5	1	1	0	0	1	0	0																			<p>No relevant systematic reviews, scoping reviews or guidelines identified.</p>
1242	<p>What are the most effective and acceptable strategies to raise awareness about hyperacusis? Are GPs sufficiently aware of the problem, to refer patients for assessment or indeed do audiologists generally ask patients questions about sensitivity to sound? Generally a greater general awareness of the problem & an understanding of the typical levels of noise which cause it and which sufferer needs to avoid. I would like to see more awareness in doctors because in my case it's a crippling condition. The condition is a whole seems to be totally disregarded by health care professionals. Gms and bear it seems to be the line. Why isn't I and it takes more seriously and why is the cross care so poor? Can more people be made aware of this condition? Can employers be made aware of this condition? I live in an isolated area. How can more family practice doctors be familiar with this condition? That's the only doctor I can see. I can't travel anywhere due to travel pain. Wouldn't it be better to have more people in the hearing medical profession know so little about a very crippling condition? Should GPs be more aware of such complaints so that they do not dismiss hyperacusis as 'just one of those things' in much the same way as tinnitus sufferers are treated. Can GPs be made more aware of treatments in which to progress? How much health care providers are aware of the problem. Yes it should be made more aware for younger people who listen to loud music all the time. Your hearing is very precious and you should be more aware of how to take care of it. How best to raise public awareness of the effects of hyperacusis on individuals. Why isn't there more public awareness? How can this be created? Are we sufficiently aware of the condition and it's debilitating consequences? It is time a need for general awareness of a public place could reduce multiple noise - eg 3 or 4 TVs within a small space leave out different adverts. This happened recently in a shop. Can you please make the condition better known by advertising it in the media? Recently went to the ENT and was never asked about this therefore make doctors in the specialist more aware</p>	42	2	31	2	0	0	3	4	0																			<p>No relevant systematic reviews, scoping reviews or guidelines identified.</p>

Q169	Is hyperacusis related to physical changes in the ear or brain?	74	17	46	5	1	1	2	1	1	1	No relevant systematic reviews, scoping reviews or guidelines identified.
	Is hyperacusis primarily a psychological issue?			X	X							
	How do changes in vestibular and central auditory system relate to problems of patients in clinical settings?			X								
	When and how did it start?			X								
	What MRI developments inform thinking in this area?			X				X				
	Do physiological changes within the brain cause hyperacusis or is it a psychological response based on an individual's perceptions?			X								
	What mechanisms of hyperacusis has a neurobiological/neurochemical or behavioural basis?			X	X							
	Is it in the ears or the brain?			X		X						
	2. What's the mechanism(s) of sound-induced ear pain or onset of hyperacusis?			X			X					
	What are the mechanisms underlying the possible causes of hyperacusis (e.g. those listed by Reguley, 2003)?					X						
	What role does the acoustic startle reflex play?					X						
	What are the causes of variation in the acoustic startle reflex? (Gault et al 1998 identify clinical & sub-clinical classification)					X						
	Is the condition related to neurological problems?					X						
	Is it related to vestibular/tonic/diaphragm or other in some cases?									X		
	Functional MRI studies in children with hyperacusis to locate which area of brain is involved and what is the possible mechanism?			X								
	What role, if any, does the cochlear feedback mechanism have in hyperacusis?					X						
	What is the mechanism that causes hyperacusis?					X						
	How can we uncover the underlying what physically happens in the ear and/or brain that causes hyperacusis in order to develop a cure?					X						
	Is hyperacusis physical, emotional (limbic system), or both?					X						
	Are there physical factors?					X						
	Are there psychological factors?					X						
	Is there a gut-brain axis link? In other words, can the state of your gut and gut micro biome affect the state of your hearing - acuity, loss or quality? Since both what we ingest (food or drugs) as well as stress can affect the composition of the micro biome - would be interested to know if there is a link to hearing and if so, can the first be modified to impact the second?					X						
	Is it caused by a physical reason rather than psychosocial?					X						
	What mechanisms are affected?					X						
	What happens in the brain when some people with dementia develop hyperacusis and some don't?					X						
	Causes and what part of the auditory system is affected?					X						
	Do hyperacusis a problem restricted or peripheral auditory phenomenon?					X						
	Is it associated with previous auditory exposure or symptoms of a CNS issue?					X						
	How are hearing for a cure, should we be looking to intervene in patients' ear or brain, or both?					X						
	How can it be established whether or not it is an ear problem or a hearing problem or a psychological problem?					X						
	Is there a physical basis for hyperacusis?					X						
	Is it a psychological problem rather than that affected by hearing?					X						
	Adults DSM and DSM results in hyperacusis patients. Are there differences compared with normal population.					X						
	Is hyperacusis more psychological than physical?					X						
	Is it a physical condition or a mental condition?					X						
	Is it all in the mind?					X						
	Is there a link with brain damage? In. Microphonia has been linked with a brain disorder by research in Newcastle.					X						
	What is the physical mechanism?					X					X	
	Please tell us what is the underlying mechanism?					X						
	Please, what are the mechanisms of hyperacusis?					X						
	What part of the condition is in the limbic system (influenced by stress and emotions), and what is purely physical symptoms?					X						
	How do they relate to each other (limbic system and physical) ...and how should they be treated?					X						
	What historical factors drive					X						
	Is it a biochemical or psychiatric?					X		X				
	Does hyperacusis have an allostatic or neurochemical origin or both?					X						
	Is low common in dysfunction of the vestibular nuclei in children presenting with increased sensitivity to sounds					X						
	Is what extent is it understandable to your areas and to what extent is it caused by environmental factors?					X	X	X				
	What creates the sensitization, is it emotional or allostatic?					X						
	Can noise exposure, trauma, infections or response alter the way the auditory pathways process incoming signals and therefore induce it to painful/discomfort?					X						
	When the underlying mechanism of the condition is not understood, shouldn't the first source of data be the patient?					X						
	Does sensitivity vary with mood as it seems to with Trichina?					X						
	How is hyperacusis generated (either brain or ear based)?					X						
	Is it caused by anything physical - an anatomical feature (born with or developed) or any kind of trauma?					X						
	Does hyperacusis have a physiological cause or is it primarily psychological? Hyperacusis is often seen in people with normal hearing but who have experienced an acoustic trauma.					X						
	What actually is happening in the ear/brain that causes hyperacusis?					X						
	Is hyperacusis all in the mind?					X						
	Is there something wrong with the ear or the hearing part of the brain in hyperacusis sufferers?					X						
	What are the mechanisms? (Acoustic ear, lower ear, brain?)					X						
	1. What is the mechanism of sound induced ear pain at onset?					X						
	Does damage to the inner ear cause hyperacusis?					X						
	What is the psychological and emotional impact of suffering from this condition? The forced isolation. Not being able to participate in social activities.						X					
	Is there a neurochemical component to dealing with hyperacusis?					X						
	What is the mechanism?					X						
	Does damage to the ear cause blood flow cause it? Or is it more damage from loud sounds?					X						
	Where is the damage?					X						
	Is hyperacusis biological or psychological? I have been told its both, (superior semi circular canal dehiscence and also associations that I have made over time with certain sounds)						X					
	What are the neurological changes that cause hyperacusis?					X						
	What is it, is it a brain problem associated with ADHD/dementia and is caused by brain changes.					X						
	What are the possible neurological mechanisms.					X	X					
	Is there a stressed state of hyperacusis?					X						
	Is hyperacusis related to noise exposure OR to childhood ear damage					X						
Q170	Does nerve damage cause the pain associated with hyperacusis?	5	2	3	0	0	0	0	0	0	0	No relevant systematic reviews, scoping reviews or guidelines identified.
	Does (sometimes) lead to hyperacusis?					X						
	Could it therefore be related to sensitization resulting in reduced inhibition?					X						
	Why do people experience pain?					X						
	Is there evidence to suggest, such as facial zippers?					X						
	I want to know the mechanism behind hyperacusis with delayed and lasting pain. Do nerve damage cause this?					X						
Q171	What area(s) of the brain and pattern(s) of activity is/are associated with hyperacusis?	29	9	16	1	1	0	1	1	0	0	No relevant systematic reviews, scoping reviews or guidelines identified.
	I am very interested in the role of the PAG area of the brain and PTSD like behaviour					X						
	Is there a model that can explain it?					X						
	What are the central processing centers in Papezari population					X						
	What parts of the brain specifically contribute to the response.					X		X				
	Is there an underlying brain disturbance causing hyperacusis?					X						
	How does this mean neurobiologically, and how useful is it in characterising hyperacusis for treatment studies?					X	X			X		
	What is known about the brain for cause hyperacusis.					X						
	Yes, we need to know what within the brain happens when hyperacusis sets triggered.					X						
	Could there be an inflammatory process in the auditory center of the brain triggered by very loud noise that causes it?					X						
	Can an MRI or CAT Scan show brain abnormalities that are linked to hyperacusis.					X						
	What causes PTSD (Preceding)? Is it due to neurotransmitter gene error. If this pathway could be discovered more than hope a cure could be discovered.					X						
	Is it somehow linked to the neurotransmitters for akathisia, and severe stimulus overload and pain and the vagus nerve, or my stress can turn it down a notch by releasing blocks there. I also have ME/CFS					X						
	Can brain imaging be used to diagnose?					X						
	Functional MRI studies in children with hyperacusis to locate which area of brain is involved and what is the possible mechanism?					X						
	Should a brain scan be required for correct diagnosis, in addition to physical examination and audiology screening?					X						
	Can we play a very faint sound and look at the AMR, EEG or MEG scans and tell who has hyperacusis and who does not?					X						
	Which part of the brain for hearing is normally damaged?					X						
	What neurotransmitter cause hyperacusis?					X						
	What are the anatomical causes?					X						
	How often does something happen inside the ear up to the brain during a hyperacusis attack?					X						
	Find a way of specifically targeting the pain pathways in the auditory system, to reduce pain.					X						
	Can PET scans be used to localize pain sources? PET scans are much quieter than MRIs and different tracers can detect neuronal inflammation, neuro-inflammation, and growth in substance P receptors. MEG scans are also quiet and are directly used for diagnosis.					X						
	(MRI) part of the brain, auditory complex is multifunctional?					X						
	Autism and dysfunction of brain.					X						
	Does the lack of correct signals in the brain cause hyperacusis?					X						
Q172	Can otitis media with effusion cause hyperacusis?	6	4	1	0	0	0	0	0	0	1	No relevant systematic reviews, scoping reviews or guidelines identified.
	Can any of the following result in hyperacusis - recurrent childhood otitis media with effusion?					X						
	Can any of the following result in hyperacusis - ear infections in adults?					X						
	Is it often seen in children with glue ear					X					X	
	Can sinusitis infection cause hyperacusis?					X						
	Does glue ear cause hyperacusis?					X						
	Is glue ear a cause					X						

