

SELF-STUDY GUIDE

For candidates seeking the BC-HIS credential



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NBC-HIS CANDIDATE SELF-STUDY GUIDE

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INTRODUCTION

Individuals who dispense hearing aids refine and enhance a multitude of needed skills through “hands-on” training with patients/clients with hearing loss as well as through ongoing continuing learning (continuing education or CEs). This “hands-on” experience and continual learning, above and beyond the minimum requirements for licensure, is necessary for successful completion of the National Competency Exam (NCE).

Meeting the eligibility requirements to sit for the NCE and passing the NCE is the only way to earn the Board Certified in Hearing Instrument Sciences (BC-HIS) designation.

Board Certification in Hearing Instrument Sciences accredits the skills and competency achieved by a hearing healthcare professional. By earning the BC-HIS designation, you will demonstrate your competency to the public and hearing healthcare professionals.

The NCE is the only board certification exam for hearing healthcare professionals accredited by the [*National Commission for Certifying Agencies \(NCCA\)*](#), a nationally recognized organization that reviews and accredits international competency testing for certifying organizations. NCCA is part of the [*Institute for Credentialing Excellence*](#).

PURPOSE OF THE CANDIDATE SELF-STUDY GUIDE

The Candidate Self-Study Guide is a companion to the [*Candidate Handbook*](#). Together, the pieces are designed to provide candidates with the information needed throughout the process of seeking Board Certification in Hearing Instrument Sciences (BC-HIS). The Handbook provides step-by-step directions and related policies for:

- Applying for board certification,
- Registering for the exam,
- Sitting for the exam, and
- Maintaining board certification.

The Candidate Self-Study Guide provides information about the domains assessed by the exam and guides candidates through the process of self-identifying areas for additional study.

EXAM DEVELOPMENT PROCESS

The first step in developing the National Competency Exam (NCE) is for Subject-Matter Experts (SMEs) to define the scope of the examination and the target audience for the credential, including a description of the Minimally Qualified Candidate (MQC), which defines in behavioral terms the level of competence required to pass the exam. The description of the MQC is used throughout the test development process to help ensure the test content domain and its relative level of difficulty are appropriate given the purpose of the exam and other major program parameters.

From there, SMEs work to create and launch a [*Job Task Analysis study*](#) and use the results of the study to create the test blueprint, which includes the competency areas (domains) assessed by

the exam, the specific competencies that underlie each domain, and the weighting of each domain. Each domain is described in detail later in this Self-Study Guide.

COMPETENCY AREAS AND WEIGHTING ON THE NCE

Domain 1 Assess patient presenting problem and needs	22%
Domain 2 Test and analyze patient hearing	26%
Domain 3 Prescribe and analyze hearing instruments	19%
Domain 4 Fit, adjust, program and service hearing instruments and equipment	18%
Domain 5 Counseling, rehabilitation, and professional practice	15%

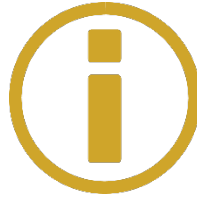
Even though the NCE has five competency areas, it is scored as a single exam. Each item is scored as either correct or incorrect; there is no partial credit given for any item. The percentage associated with each competency area reflects the proportion of items pertaining to that area that will be on the exam.

DESCRIPTION OF THE MINIMALLY QUALIFIED CANDIDATE (MQC)

The description of the Minimally Qualified Candidate (MQC) defines in behavioral terms the level of competence required to pass the exam. The description of the MQC is used throughout the test development process to help ensure the test content domain and its relative level of difficulty are appropriate given the purpose of the exam and other major program parameters.

For the NCE, the minimally qualified candidate has two years of experience as a licensed hearing aid specialist/dispenser or equivalent. Although the individual may work with only a few tools and instruments, they should have a general knowledge of the breadth and depth of available tools and instruments. The individual should be capable of performing or understanding all tasks within the hearing aid specialist scope of practice.

What is this person able to do without assistance?	<p>Assess patient's level of hearing loss and communication needs.</p> <p>Perform and evaluate the appropriate audiometric tests.</p> <p>Evaluate potential impact of patient's health, family, and occupational history along with other psychosocial factors (e.g., lifestyle).</p> <p>Determine appropriate treatment including hearing instruments and other assistive devices.</p> <p>Troubleshoot and perform follow-up adjustments to hearing instruments and other assistive devices.</p> <p>Counsel patient and others regarding aural rehabilitation.</p> <p>Refer to other healthcare professionals when appropriate.</p> <p>Follow NBC-HIS's Code of Ethics.</p>
What is this person able to do with assistance?	<p>The MQC should be able to perform all tasks in the domain without assistance. It is recognized that the candidate will require assistance when learning how to use new tools, technologies, techniques, or methodologies.</p>
In what environments?	<p>All typical work environments (i.e., clinics, retail offices, medical offices, nursing homes, private practices, and residences)</p>
Using what tools?	<p>Protocols, equipment, and instruments used by the profession and typically at a hearing aid specialist's disposal.</p>
What is this person NOT expected to do?	<p>Medical diagnoses (unless licensed MD).</p> <p>Exceed scope of practice set forth by governing agency's license (or equivalent).</p>



IMPORTANT NOTES ABOUT USING THE SELF-STUDY GUIDE

- Use of this Candidate Self-Study Guide and/or the Candidate Handbook does not imply you will receive a passing score on the NCE. The design and purpose of the NCE is to test your skill as a hearing healthcare professional. The accomplishment of the BC-HIS designation rests upon your successful completion of the NCE.
- You can use this tool to help identify your experience level and possible gaps in knowledge or experience. Results are for your use only and do not guarantee proficiency or passing performance on the exam.
- Items (sample questions) provided in the Candidate Self-Study Guide are not, have not, and will not be included on the NCE.
- Performance on those items is not predictive of performance on the NCE.
- While generally indicative of the types of questions you will find on the NCE, the items and the feedback provided with them have not undergone beta testing or a full psychometric review. They are provided to give you a general idea of how items are written to assess your knowledge and skills related to the test blueprint.
- NBC-HIS does not recommend or endorse any test preparation programs, practice tests, or other similar products. NBC-HIS does not require or recommend any specific preparatory pathway to be eligible to sit for the NCE. Completion of this Self-Study Guide is optional.



AVAILABLE IN AN ONLINE, INTERACTIVE FORMAT

The Candidate Self-Study Guide is also available in an online, interactive format.

[Click here](#) to access the online version, which is available for multiple platforms (desktop, mobile phone, tablet, etc.) and will provide you with a summary of your responses for ease in creating your own preparation plan.



HOW TO USE THE GUIDE

The purpose of this guide is to familiarize you with competency areas that will be tested, and the different item formats used.

This guide is organized by competency domain. The first part of each section will list the elements of each domain and ask you to self-assess your experience and knowledge of each item. You can use your responses to map a plan of focus points for additional study, experience, or practice.

After you have completed your self-assessment of each area, you will have an opportunity to complete a few sample questions to get a sense of the type and format of questions used and how the questions relate to the test blueprint. You also may find it helpful to look at the sample questions and determine which element from the domain it assesses. A brief commentary is provided with each question to provide you with additional insight in understanding how questions are constructed and mapped to the domain.

The items are representative of the style and content of the items used on the current National Competency Exam (NCE). While some questions may have only one correct answer, some questions may have multiple options that must be chosen to answer the question correctly. If more than one option must be chosen, it will be pointed out in the question. If more than one option is asked for, you must answer with all the correct options to get credit for the question. No partial credit is given. Be sure to read the question carefully and pay special attention to words like: BEST, NEXT, NOT, DO NOT, FALSE, TRUE, SELECT ALL, MOST, and LEAST.

DOMAIN 1: Assess patient presenting problem and needs (22%)

- 1) Given a patient scenario that includes a family history of hearing loss, identify the most likely type/degree/slope of hearing loss or potential impact to hearing.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 2) Given a patient scenario that includes childhood hearing-related illnesses, identify the most likely type/degree/slope of hearing loss or potential impact to hearing.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 3) Given a patient scenario that includes hearing loss duration and/or dizziness and/or loss of balance and/or trauma and/or discomfort and/or tinnitus, identify the most likely type/degree/slope of hearing loss or potential impact to hearing.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 4) Given a patient scenario that includes past and/or current health conditions and/or medication/drug history, identify the most likely type/degree/slope of hearing loss or potential impact to hearing.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 5) Given a patient scenario that includes occupations or recreational activities that include exposure to noise and acoustic trauma, identify the most likely type/degree/slope of hearing loss or potential impact to hearing.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 6) Given a patient scenario including history of ear surgeries, diseases, and treatments, identify the most likely type/degree/slope of hearing loss or potential impact to hearing.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 7) Given a patient scenario with different types of hearing loss, identify the potential impact on patient's lifestyle (family, work, and social activities).

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 8) Given a patient scenario, identify which symptom would MOST likely require a medical referral.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 9) Given a patient scenario involving noise exposure, identify the most appropriate type of preventative hearing protection.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 10) Differentiate between scenarios that indicate a hearing loss vs. lack of understanding.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Domain 1 Sample Questions



During case history, an adult patient who is an avid hunter reports having recurring acute ear infections as a child continuing into adulthood. Patient complains of significant difficulty understanding speech in most listening situations. Patient has significant scar tissue on both TMs. What degree and configuration of hearing loss is **MOST** likely found?

Choose ONE:

- A: Moderate to severe sensorineural hearing loss
- B: Moderate to severe mixed hearing loss
- C: Moderate conductive hearing loss
- D: A moderate cookie bite configuration

Correct answer: B: Moderate to severe mixed hearing loss

Commentary: The scar tissue from previous infections causes the conductive component and continuous gunfire causes the sensorineural component.



A patient is seen for a hearing evaluation and complains of occasional tinnitus and dizziness that lasts for several hours. Audiometric testing reveals a moderate low frequency hearing loss that improves to mild before sloping to a severe sensorineural hearing loss in the high frequencies. Which one of the following is **MOST** likely?

Choose ONE:

- A: Usher's Syndrome
- B: Waardenburg Syndrome
- C: Ménière's disease
- D: Tympanosclerosis

Correct answer: C: Ménière's disease

Commentary: These are the classic symptoms of Ménière's disease with low-frequency, often fluctuating hearing loss, tinnitus which is sometimes constant but more often transitory, and episodes of vertigo that typically are also transitory.



After testing, audiometric results identify moderately severe high frequency hearing loss in both ears that the patient reports having for many years. In which situation would the patient struggle the **MOST**?

Choose ONE:

- A: One-on-one conversation
- B: Watching television
- C: Phone call with family member
- D: Conversation in a restaurant

Correct answer: D: Conversation in a restaurant

Commentary: Background noise can significantly affect someone with moderately severe high frequency loss, and a restaurant is a location where someone is most likely to encounter a significant amount of background noise compared to other situations.



After testing, audiometric results identify mild to moderate conductive hearing loss with a word recognition score of 96% and an MCL of 70dB HL. In what situation would the patient **MOST** likely struggle?

Choose ONE:

- A: Understanding spouse from another room
- B: One-on-one conversation at home
- C: Watching television
- D: Phone call with family member

Correct answer: A: Understanding spouse from another room.

Commentary: This question tests your understanding of conductive hearing loss with a very good word recognition score. Speech at a distance is naturally softer, the most likely area of struggle is hearing and understanding at a distance.

[illegible]

DOMAIN 2: Test and analyze patient hearing (26%)

1) Identify irregularities/obstructions during an otoscopic examination.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2) Identify when the patient would benefit from cerumen management, removal, and/or precautions in cerumen management.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3) Given an audiogram, identify the degree and type of hearing loss based on the pure-tone air and bone-conduction results (revised) or proper technique modifications.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4) Given tympanogram and/or reflex results, identify condition(s) that would cause the tympanogram and/or reflex configuration.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5) Identify potential methods for managing tinnitus.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6) Identify when to conduct speech awareness and/or speech reception threshold test.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 7) Given speech discrimination test results, identify how it would impact the patient's hearing OR most appropriate treatment option/additional testing.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 8) Given audiometric test results showing air- and/or bone-conduction testing and masking levels, determine whether this was over masked, under masked, effectively masked, masking was not necessary, or a masking anomaly.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 9) Given a patient scenario and Most Comfortable Listening Level (MCL) and Uncomfortable Loudness Level (UCL), identify the potential impact on fitting.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 10) Interpret Speech in Noise (SIN) results and impact on treatment plan.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 11) Identify when appropriate to use specialized tests or screenings and/or how to interpret the results.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12) Identify irregular test results or the potential causes of irregular test results.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13) Given otological or hearing test results, identify the results that require medical referral.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Domain 2 Sample Questions



A new patient complains of difficulty hearing in crowded restaurants, at family functions and during work meetings. Otoscopic examination is unremarkable and audiometric results are within normal limits. What additional test should you complete **NEXT**?

Choose ONE:

A: QuickSIN

B: Weber

C: PI/PB rollover

D: Stenger

Correct answer: A: QuickSIN

Commentary: The QuickSIN will measure the ability for the patient to separate speech and noise, helping determine realistic expectations in competing noise environments.



A current RIC device wearer returns to your office repeatedly with complaints of devices not working properly. Due to debris on devices, the receiver domes and filters get routinely replaced. However, the patient is typically back within a week with the same complaint. What is the **BEST** next step?

Choose ONE:

A: New audiogram

B: Otoscopic exam

C: Electroacoustic analysis of devices

D: Send devices for repair

Correct answer: B: Otoscopic exam

Commentary: Finding out the source of the debris can help in determining if the problem can be resolved through lavage or medical treatment.



A new patient comes in for an exam accompanied by a language interpreter. After completing audiometric testing, what standardized recorded speech testing would you conduct **NEXT** to best verify the PTA?

Choose ONE:

A: MCL

B: UCL

C: SAT

D: SRT

Correct answer: C: SAT

Commentary: While SRT is the traditional test method, when communication barriers exist, the SAT (speech awareness/detection threshold) is the best solution for determining the lowest threshold of speech detection.



A current hearing instrument user reports current devices are comfortable at a normal conversational level but often uncomfortably too loud with intense sounds. What is the **BEST** adjustment?

Choose ONE:

A: Reduce the MPO

B: Change to open fit domes

C: Reduce overall gain

D: Increase soft gain

Correct answer: A: Reduce the MPO

Commentary: Since normal conversation is good, you don't want to impact that. Lowering the MPO will address the uncomfortable sounds.

[illegible]

DOMAIN 3: Prescribe and analyze hearing instruments (19%)

- 1) Given a patient scenario that includes physical and/or cognitive limitations, identify the appropriate hearing instrument (e.g., style, configuration, matrix).

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 2) Given a patient scenario including physical/cognitive limitations or knowledge of technology, identify which telephone use options are most appropriate.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 3) Given a patient scenario that includes lifestyle, physical/cognitive limitations, or knowledge of technology, identify which Assistive Listening Devices (ALDs) are most appropriate.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 4) Given a patient's ear canal, size, hearing loss, and lifestyle, identify the contraindications for Invisible-in-Canal (IIC) hearing instruments, i.e., extended or daily wear use.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 5) Given a patient scenario, identify the most appropriate modification to the procedures and/or materials during an ear impression.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 6) Given a patient scenario, identify the most appropriate tube/wire length, dome size, earmold, or receiver power for over-the-ear (OTE), receiver-in-canal (RIC), and behind-the-ear (BTE) hearing instruments.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 7) Given a patient scenario, evaluate and explain advantages and disadvantages of custom hearing instruments versus OTE, RIC, and BTE.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 8) Evaluate possible treatment options for asymmetrical and single-sided deafness (SSD).

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 9) Given a patient scenario that includes lifestyle, history, test results, and ear canal characteristics, determine the most appropriate hearing instrument.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Domain 3 Sample Questions



Patient comes in for a six-week follow up and indicates the ability to hear spouse and family members well but has trouble understanding the TV with background noise in the room unless the TV is uncomfortably loud for other people. What would be the **BEST** solution for this patient?

Choose ONE:

- A: TV Streamer Device
- B: Remote Microphone
- C: Television Sound Bar
- D: TV Headphones

Correct answer: A: TV Streamer Device

Commentary: Utilizing a TV streamer allows for the signal to be directly sent to the hearing aids, minimizing the interference of background noise in the room.



A first-time user concerned with visibility of the hearing aid and presenting with a mild, high frequency hearing loss requests to be fitted with IIC aids. Which of the following is **NOT** a contraindication to this fitting?

Choose ONE:

- A: Bluetooth streaming capability
- B: TMJ concerns
- C: Sound localization
- D: IROS venting

Correct answer: C: Sound localization

Commentary: This is a possible example of a rare "negative" or "**NOT**" question and a reminder to read all questions carefully. Three of the choices given are true challenges with IIC fittings for a mild loss patient. Sound localization is not a contraindication.



A first-time user concerned with visibility of the hearing aid and presenting with a mild, high frequency hearing loss requests to be fitted with IIC aids. Which of the following are possible contraindications to this fitting?

Choose TWO:

A: Otitis externa

B: Exostosis

C: Skin cancer history

D: Bell's Palsy

Correct answer: A: Otitis externa **and** B: Exostosis

Commentary: This is a possible example of a rare question asking for two correct answers and a reminder to read all questions carefully. The presence of otitis in the auditory canal is a clear contraindication. An IIC fitting is not an impossible fitting with exostosis, but it could be an issue. However, the other two choices given are not contraindications to an in-the-ear fitting.



Patient comes in for initial consultation and is interested in getting help but has questions about the pros and cons of custom devices vs. OTE, RIC and BTE. Which of the following two statements are true?

Choose TWO:

A: Custom devices have better word clarity.

B: RIC and BTEs have a wider fitting range.

C: OTEs fit a wider frequency range.

D: Custom devices are simpler to insert.

Correct answer: B: RIC and BTEs have a wider fitting range. **and** D: Custom devices are simpler to insert.

Commentary: This is a possible example of a rare question asking for two correct answers and a reminder to read all questions carefully. The same RIC can typically be fit with S-power through HP-power receivers, and UltraPower BTEs are currently the most powerful hearing aids available, and therefore these styles offer the widest fitting range. Custom devices are simpler to insert since they don't require a double action of placing one part in the ear and the other part over the ear like RIC and BTE aids.

[illegible]

DOMAIN 4: Fit, adjust, program, and service hearing instruments and equipment (18%)

- 1) Given subjective verification outcome results (e.g., sound field aided/unaided discrimination, sound field aided/unaided warble tones or narrow band noise), identify the appropriate adjustment.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 2) Given results from real ear or speech mapping, identify potential causes of problems or identify the appropriate modification.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 3) Given a patient complaint, identify the appropriate methodologies for modifying the physical fit of earmolds, custom shells, OTE, BTE, and RIC instruments.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 4) Given a patient complaint, troubleshoot and adjust/modify programming of hearing instrument.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 5) Identify or resolve potential hearing instrument problems caused by obstructions or moisture.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 6) Troubleshoot pairing and wireless connectivity between hearing-related devices.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Domain 4 Sample Questions



A patient fit with RIC hearing aids struggles to hear up close but hears well at a distance. The patient has a bilateral sensorineural moderate loss with a PTA of 45dB. What is the **MOST** likely cause of this issue?

Choose ONE:

- A: Compression too high
- B: Compression too low
- C: MPO set too low
- D: MPO set too high

Correct answer: A: Compression too high

Commentary: Voices that are closer are typically louder. When voices are further away, they are softer. When compression is too high, softer distant voices can be significantly amplified while louder and closer voices get compressed.



Patient complains of discomfort with newer custom CIC aids. Visual observation reflects a reddening and depression at the bottom of the ear canal entrance. What is the **MOST** appropriate next step to take?

Choose ONE:

- A: Send the present aid into the lab with a new impression for a shell remake marking the spot.
- B: Taper the tip for a deeper fit past the sore area at canal entrance.
- C: Grind and polish the shell at the bottom of the aid where the redness appears.
- D: Encourage longer wearing to see if the patient's ear becomes accustomed to the new aid.

Correct answer: C: Grind and polish the shell at the bottom of the aid where the redness appears.

Commentary: This is a new custom aid. A slight reduction in the shell material at the sore point is likely all that is needed for this patient, and the patient is not without the aid for one to two weeks for a lab remake.



A patient complains that they cannot hear their grandchildren from the back seat of their car or their spouse in the passenger seat. They are using the restaurant noise reduction program with fixed directionality. What programming modification would you make **FIRST** to improve audibility for this situation?

Choose ONE:

- A: Increase soft sound gain and increase compression.
- B: Decrease soft sound gain and decrease compression.
- C: Create a noise program with omni directionality.
- D: Create a noise program with cardioid directionality.

Correct answer: C: Create a noise program with omni directionality.

A noise program with an omnidirectional microphone setting allows the microphones to search for speech signals from all directions. This would make it easier for the patient to hear voices from behind.



Patient comes into the office reporting that their hearing instrument seems to be working but voices are muffled. A listening check reveals that the multi-memory indicator tones are functioning properly, but voices are not clear. What is the **MOST** probable cause of this issue?

Choose ONE:

- A: Receiver is plugged with wax.
- B: Microphones are obstructed.
- C: Devices need to be turned up.
- D: Hearing loss has changed.

Correct answer: B: Microphones are obstructed.

Commentary: Microphone obstruction would allow the indicator tones to be heard but ambient sounds to be obstructed.

[illegible]

DOMAIN 5: Counseling, rehabilitation, and professional practice (15%)

- 1) Given the results of otoscopic examination and audiometric examination, which is the most appropriate patient explanation?

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 2) Identify potential limitations and benefits of amplification.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 3) Identify helpful strategies and information for improved hearing and communication in various situations or environments.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 4) Identify appropriate manual hearing instrument adjustments that patients, family members, or caregivers can make.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 5) Identify principles of NBC-HIS Code of Ethics.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 6) Identify when a client is a possible candidate for a surgical solution, e.g., cochlear implant, Bone-anchored Hearing Aid (BAHA), etc.

	No Experience	Limited	Experienced	Advanced
What is your experience level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Domain 5 Sample Questions



Upon otoscopic examination of a non-wearing hearing aid candidate, you visually identify an opaque appearance on the TM and some cerumen past the second bend of the ear canal. What should be the **NEXT** steps and what recommendation should you offer?

Choose ONE:

- A: Describe tympanosclerosis and its effect on hearing.
- B: Proceed with audiometric testing and explain effective ear canal cleaning.
- C: Reschedule the hearing examination until the canal is fully clear of cerumen.
- D: Recommend physician referral before proceeding with further testing.

Correct answer: B: Proceed with audiometric testing and explain effective ear canal cleaning.

Commentary: Opaque appearance of the TM is consistent with otosclerosis and is not a reason to halt testing or withhold treatment. A small amount of cerumen present should not preclude testing as long as the TM is adequately visible. In this case, the TM was clearly visible since the otoscopy revealed the opaque surface.



A first-time hearing instrument user comes in with spouse at the six-week follow-up visit reporting difficulty hearing their partner from the other room while the television is on. They want to hear their spouse better and TV less. Your next **BEST** action is to:

Choose ONE:

- A: Increase soft-level gain and compression
- B: Decrease high-frequency compression
- C: Counsel spouse to speak louder
- D: Counsel on realistic expectations

Correct answer: D: Counsel on realistic expectations

An effectively fitted patient may experience difficulty hearing from a distance, especially when the TV is louder than voices at a distance. Counseling on realistic expectations and effective communication techniques is key to optimal patient care.



The principles of NBC-HIS Code of Ethics **DO NOT** include:

Choose ONE:

- A: Cooperating with NBC-HIS throughout an investigation of potential Code of Ethics violations
- B: Reporting to NBC-HIS any conduct about another certificiant appearing to violate the Code of Ethics
- C: Using a hearing instrument buying group to secure more favorable pricing than your competition
- D: Criticizing the services and fees of another hearing healthcare professional who is undercutting you

Correct answer: C: Using a hearing instrument buying group to secure more favorable pricing than your competition

Commentary: This is an example of a rare **DO NOT** item and a reminder to read the questions carefully. The question is looking for an answer that does NOT apply to the Code of Ethics. There is no restriction within the NBC-HIS Code of Ethics that precludes a practice from securing favorable pricing through buying groups. The Code of Ethics specifically does include reference to the other answers given.



A long-term binaural hearing aid user with severe sensorineural hearing loss wearing premium devices has trouble with speech clarity, sound localization, and background noise. Hearing aid analysis shows hearing aids are functioning normally and to manufacturer specifications. Word recognition right is 28% and left is 12%. Binaural WRS 32%. What solution will **MOST** likely improve this patient's outcomes?

Choose ONE:

- A: Cochlear implant
- B: BAHA
- C: Bi-CROS fitting
- D: Monaural fit

Correct answer: A: Cochlear implant

Traditional binaural amplification is inadequate to improve outcomes for this patient. A cochlear implant could significantly benefit the patient's word recognition while neither the BAHA nor the Bi-CROS will assist in sound localization.

[illegible]

ADDITIONAL TIPS

The NCE is based upon what you do every day in your practice of fitting and dispensing hearing aids. Questions are generally situational and require application or analysis of contextual factors rather than recall of memorized information.

Be sure to read the question carefully and **pay special attention to words** like: BEST, NEXT, NOT, FALSE, TRUE, SELECT ALL, MOST and LEAST.

Become familiar with the **format** of questions on the exam.

Arrive Early. Most exam candidates will be able to take the exam at a location near them. However, if you must travel more than 1-2 hours to an exam site, you may want to travel the day before and opt to stay at a nearby hotel. It is in your best interest to minimize the risk of missing the exam due to unexpected delays, traffic, or other travel difficulties. You should arrive at the test site at least 20 minutes prior to your scheduled start time to allow sufficient time for check-in.

Get a Good Night's Sleep. Go into the exam well rested. You will likely be able to concentrate better.

Be Sure You Understand the Instructions. Instructions will be provided at the start of the exam. If you have any questions, ask the administrator or proctor at the exam site.

Develop a Timetable. Confirm the time allowed for your exam. Never spend too much time on any one question.

Draw a Blank - DON'T PANIC! If you "freeze" on a question, don't hit the panic button! This happens to all of us in an exam. As a rule, when you panic, you diminish your ability to think clearly. Simply go to the next question and come back to it later. You may mark questions for later review should you think of a response as you take the rest of the NCE.

Changing Your Answers. Generally, it isn't considered a good test-taking strategy to second-guess or change your answers. However, if you misread or misinterpreted a question originally or remember some information not previously considered, or another question jogs your memory, you may improve your score by changing your answer.

Be Practical. It is highly unlikely to achieve a perfect score on a standardized certification exam. Everyone will miss some questions. The certifying exam can only sample the many subjects and procedures addressed in the fitting and dispensing of hearing aids. The passing score is directly tied to the minimally qualified candidate description provided earlier in the Self-Study Guide and not your relative performance to your peers. Remember, a calm positive attitude will permit you to calmly consider each item on the NCE and allow you to demonstrate your true qualifications to earn your credential.

In Summary, there is no substitute for knowing what the exam entails and a good understanding of the process involved in taking an exam. Spend some time with the Candidate Handbook and Candidate Self-Study before taking the exam.