

**Instruction:** Can you answer the following question as accurately as possible? You suspect that your patient has an enlarged submandibular salivary gland. You expect the enlarged gland: A) to be palpable intraorally. B) to be palpable extraorally. C) to be palpable both intra- and extraorally. D) only to be detectable by radiographical examination. \n Explain your answer, putting the answer in the form (X) at the end of your response.

### Round 1

**Agent 1:** An enlarged submandibular salivary gland is typically palpable extraorally. This is because the submandibular gland is located underneath the mandible bone, and therefore is more easily palpable from the outside of the mouth rather than inside. However, in some cases, the gland may also be palpable intraorally if it is significantly enlarged. Therefore, the answer is (C) to be palpable both intra- and extraorally. ✓

**Instruction:** Here are responses from other agents: (Copy Agent 2's reply) Using the solutions from other agents as additional information, can you give an updated response....

**Agent 2:** Based on the location of the submandibular salivary gland, it is more likely to be palpable extraorally than intraorally. This is because the gland is located beneath the mandible and extends posteriorly, making it more accessible for palpation outside of the oral cavity. Therefore, the expected answer is (B) to be palpable extraorally ✗

**Instruction:** Here are responses from other agents: (Copy Agent 1's reply) Using the solutions from other agents as additional information, can you give an updated response....

### Round 2

**Agent 1:** After considering the reasoning from other agents, I would update my answer to (C) to be palpable both intra- and extraorally. The submandibular salivary gland is located in the submandibular triangle, extending from the hyoid bone to the mandible. This location allows the gland to be palpable both intra- and extraorally. However, it is primarily palpable extraorally due to its location beneath the mandible, making it more accessible for examination outside of the oral cavity. Additionally, in some cases, if the gland is significantly enlarged, it may also be palpable intraorally. \n \n It is essential to perform a thorough examination by palpating both intra- and extraorally to assess the gland properly. By combining the inputs from other agents, I conclude that it is crucial to perform a complete examination, including extraoral and intraoral palpation, to evaluate the gland's size and location. Therefore, the updated answer is (C) to be palpable both intra- and extraorally. ✓

**Agent 2:** After carefully considering the reasoning from other agents, my updated answer would be (C) to be palpable both intra- and extraorally. The submandibular salivary gland is located in the submandibular triangle, extending from the hyoid bone to the mandible. While the gland is primarily palpable extraorally due to its location beneath the mandible, it can also be palpable intraorally in some cases if significantly enlarged. \n \n Therefore, it is essential to perform a thorough examination by palpating both intra- and extraorally to assess the gland properly, as stated by the other agents. This will allow for a more accurate and comprehensive evaluation of the gland's size and location. Overall, the input from other agents supports the conclusion that the gland can be palpable both intra- and extraorally, and a complete examination is necessary to evaluate its condition. ✓

Figure 26: Example of MMLU Debate.

**Instruction:** Give a bullet point biography of Stephan R. Bourne highlighting their contributions and achievements as a computer scientist, with each fact separated by a new line character.

### Round 1

#### Agent 1:

- Stephen R. Bourne is a British-born American computer scientist.
- He is best known for creating the Bourne shell (sh) for the Unix operating system in 1979.\n- The Bourne shell was the default Unix shell for many years and is still in use today.
- Bourne also worked on the development of the UNIX System III and IV operating systems.
- He later joined AT&T Bell Laboratories, where he worked on the UNIX System V operating system and its derivatives.
- Bourne was awarded the ACM Software System Award in 1983 for his work on the Bourne shell.
- He is also a recipient of the USENIX Lifetime Achievement Award (2001) and the IEEE Computer Pioneer Award (2010).
- Bourne is now retired and continues to be involved in the computer science community.

#### Agent 2:

- Stephen R. Bourne is a computer scientist known for his development of the Unix shell, or command-line interface, known as the Bourne shell.
- He earned a bachelor's degree in mathematics and a doctorate in computer science from Cambridge University.
- Bourne worked at Bell Labs, where he helped to create the Unix operating system and its command-line interface.
- In addition to the Bourne shell, he also created the Bourne-Again shell (bash) and was involved in the creation of the Korn shell.
- Bourne was awarded the USENIX Lifetime Achievement Award in 1999 and was elected as a Fellow of the Association for Computing Machinery in 2013.
- He has authored and co-authored numerous technical papers and books, including "The Unix System," a widely used textbook on Unix programming.

**Instruction:** Here are some bullet point biographies from other agents: (Copy Agent 2's reply) Using the biographies as additional information, can you give an updated bullet point biography.

**Instruction:** Here are some bullet point biographies from other agents: (Copy Agent 1's reply) Using the biographies as additional information, can you give an updated bullet point biography.

### Round 2

#### Agent 1:

- Stephen R. Bourne is a computer scientist known for his development of the Unix shell, or command-line interface, known as the Bourne shell.
- He earned a bachelor's degree in mathematics and a doctorate in computer science from Cambridge University.
- Bourne worked at Bell Labs, where he played a key role in the creation of the Unix operating system, and was involved in the development of its command-line interfaces.
- In addition to the Bourne shell, he also created the Bourne-Again shell (bash) and contributed to the development of the Korn shell.
- Bourne was awarded the ACM Software System Award in 1983 for his work on the Bourne shell, and the USENIX Lifetime Achievement Award in 1999 for his contributions to the field of computer science.
- He was also elected as a Fellow of the Association for Computing Machinery in 2013 in recognition of his significant contributions to the field.
- Bourne has authored and co-authored numerous technical papers and books, including "The Unix System," a widely used textbook on Unix programming, and continues to be involved in the computer science community after his retirement.

#### Agent 2:

- Stephen R. Bourne is a highly respected computer scientist and mathematician who revolutionized the computing field with his development of the Unix shell, popularly known as the Bourne shell.
- He earned his bachelor's degree in mathematics and a doctorate in computer science from Cambridge University, and began his career at Bell Labs where he played an integral role in the creation of the Unix operating system.
- During his tenure, Bourne developed the Bourne shell, which became the foundation for the Unix command-line interface.
- Bourne was not only a prolific developer, but he also contributed to the development of several other command-line interfaces, including the Bourne-Again shell (bash) and the Korn shell.
- As a testament to his significant contributions to the field of computer science, Bourne was honored with the ACM Software System Award in 1983, and later the USENIX Lifetime Achievement Award in 1999.
- In recognition of his substantial contributions, he was elected as a Fellow of the Association for Computing Machinery in 2013.
- Bourne is also an accomplished author and co-author of several technical papers and books, including "The Unix System," a widely used textbook on Unix programming.
- Despite his retirement, Bourne continues to be actively involved in the computer science community, sharing his expertise and experiences with younger generations of aspiring computer scientists.

Figure 27: **Example of Biography Debate.** While we found that generated biographies after debate to be more accurate, many facts remain incorrect.

**Instruction:** Here is the current sequence of moves in a chess game: 1. e4 c6 2. d4 d5 3. Nd2 Qc7 4. Bd3 dxe4 5. Nxe4 Bf5 6. Nf3 Nd7 7. O-O e6 8. c4 Bg6 9. d5 Bxe4 10. Bxe4 Ndf6 11. Re1 Nxe4 12. Rxe4 Nf6 13. Re1 O-O-O . What is the best chess move I should execute next? Give a single move suggestion of the form 14. <XXX> and make sure the chess move is valid in the current board state.

Round 1	
<b>Agent 1:</b> 14. dxe6	<b>Agent 2:</b> 14. Be3
<b>Instruction:</b> Using the solutions from other agents as additional information. (Copy Agent 2's reply)	<b>Instruction:</b> Using the solutions from other agents as additional information. (Copy Agent 1's reply)
Round 2	
<b>Agent 1:</b> Based on the current board state and the suggested moves, I would suggest the move: 14. Qa4. This move attacks the undefended bishop on f5 and puts pressure on black's position.	<b>Agent 2:</b> I would still suggest the move 14. Be3. It develops a piece and prepares to put pressure on black's position. Additionally, it reinforces the e4 pawn and prepares to castle kingside.
<b>Instruction:</b> Using the solutions from other agents as additional information. (Copy Agent 2's reply)	<b>Instruction:</b> Using the solutions from other agents as additional information. (Copy Agent 1's reply)
Round 3	
<b>Agent 1:</b> After considering the suggestions of other agents, I still believe that the move 14. Qa4 is the best move in the current board state. It attacks the bishop on f5, prepares to develop the queen, and puts pressure on Black's position.	<b>Agent 2:</b> After considering the suggestions of other agents, I would suggest the move 14. Qa4. It attacks the bishop on f5, prepares to develop the queen and puts pressure on Black's position.

Figure 28: Example of Chess Debate.