Dear Colleague,

Thank you for your interest in the network study “Decision Aids for the Management of Suspicious Occlusal Caries Lesions”. You will be presented with a series of clinical cases that include photos and descriptions of a patient’s tooth. For each case you will be asked how likely it is that the suspicious area extends into dentin. We are studying the influence that these 3 or 4 factors have on dentists’ decisions. You will see the same tooth several times but each time the risk factors or clinical findings will be different. Please review each tooth/case with its unique combination of factors and then choose your preferred recommendation for the treatment of the suspicious area.

In all cases, these are new patients who plan on becoming patients in your office for regular care in the future. The patients have no complaints, no relevant medical history, and are in your office today for an initial exam. Each patient has been assigned a risk category based on a combination of commonly used risk factors including age, caries history, oral hygiene, etc. The surface of the tooth has been assigned a texture category based on the feel of a probe on the occlusal surface. The radiograph(s) you have available indicates no evidence of caries into dentin. The occlusal surface has no previous restoration or sealant and has no symptoms of sensitivity to sweets, cold, air, etc. The tooth has been air dried for approximately 5 seconds.

We prefer that you complete the cases in one sitting. Our pretesting suggests that it will only take between 10 and 20 minutes total to complete all of the cases for which you or your practice organization will receive $50 as compensation. However, if you are unable to complete them in one sitting, you do have the option to save and continue at another time. We ask that you complete the task within 7 days of receiving this request.

Your participation and responses will remain confidential. Only authorized study personnel will have access to data. All information will be stored in a secure manner. Your information will not be sold, used for any reason other than research, released to any insurance company, or released to any other similar interest. Information from this questionnaire and other network studies that you complete or have completed, may be linked using your assigned practitioner ID number. This will allow us to see how characteristics from each study might be related to each other.

Results may be published for scientific purposes, but your identity will not be revealed. Only statistical summaries will be presented. The University of Alabama at Birmingham (UAB) Institutional Review Board (IRB) maintains the authority to inspect completed questionnaires to ensure compliance with IRB procedures. If you have any additional questions, please contact your Regional Coordinator.

If you have questions about your rights as a research participant, you may contact the UAB IRB at (205) 934-3789 or (800) 822-8816. Press option #1 for the operator and request extension 4-3789 (M-F, 8:00 AM - 5:00 PM Central Time).

With regards,
Gregg Gilbert, DDS, MBA, FAAHD, FICD
National Network Director
The National Dental Practice-Based Research Network
Instructions

The following instructions will help you complete this exercise.
- For each scenario designate how likely it is that the suspicious area extends into dentin by moving the slider to the desired position on the scale between not at all likely and very likely. The slider must be moved (even if back to 0) in order to indicate a response.
- You will then choose your preferred recommendation for the treatment of the suspicious area. You can only choose one recommendation.
- Use the “Forward” and “Back” buttons within the survey to move forward and backward throughout the survey. DO NOT use the forward and back arrows at the top left corner of your internet browser screen.
- On occasion, if you forget to answer a question or provide an answer that is invalid, you may see a message highlighted in yellow that provides information on how to fix the problem.
- Press the “Save and Continue Later” button if you wish to save your answers and complete the survey at a later time.
- The survey will “time out” after 30 minutes of no activity. The next time you log in, you will be returned to the last screen you were on.
- You can come back to the survey either by returning to:
  o The link sent previously by email. You will automatically return to the last screen you were on; or
  o www.SOCLstudy.com/Pre Study Vignette/ and re-enter the same code you used when starting the survey. You will automatically return to the last screen you were on.
- We recommend that you do not use a small mobile device (cellular phone or tablet) to complete this questionnaire.
- Feel free to adjust the angle of the computer to get the best view of the photo, similar to a clinical setting.
How likely is it that this suspicious area extends into dentin?

<table>
<thead>
<tr>
<th>Not at all likely</th>
<th>Very likely</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

The results for the rating above range from 0-100.

The results for the question below were divided into 2 parts: non-invasive and invasive.

Which of the following treatments would be your preferred recommendation for this suspicious area (please choose one)?

- No treatment today, follow the patient regularly NON-INVASIVE
- Preventive treatment: OHI, in-office fluoride varnish or gel; non-prescription fluoride; prescription for fluoride rinse/paste; or chlorhexidine treatment NON-INVASIVE
- Sealant or unfilled resin (tooth structure not altered) NON-INVASIVE
- Sealant (minimal drilling or air abrasion) INVASIVE
- Preventive resin (minimal drilling or air abrasion) INVASIVE
- Direct restoration (amalgam or composite) INVASIVE
You consider this patient to be at low risk for caries. Upon examination, the suspicious areas feel **smooth**.

The highest percentages for specific treatment in each region were as follows:

- **Western**: 33% sealant (minimal drilling or air abrasion)
- **Midwest**: 30% no treatment
- **Southwest**: 28% full restoration
- **South Central**: 23% preventive or a sealant (minimal drilling or air abrasion)
- **South Atlantic**: 50% no treatment
- **Northeast**: 32% no treatment or preventive treatment

Figure 1.
You consider the patient to be at low risk for caries. Upon examination, the suspicious areas feel rough.

The highest percentages for specific treatment in each region were as follows:

- Western: 28% sealant (minimal drilling or air abrasion)
- Midwest: 25% sealant (tooth structure not altered)
- Southwest: 44% full restoration
- South Central: 41% preventive resin restoration
- South Atlantic: 39% full restoration
- Northeast: 26% chose preventive resin restoration or full restoration
You consider this patient to be at elevated risk for caries. Upon examination, the suspicious areas feel smooth.

The highest percentages for specific treatment in each region were as follows:

- Western: 28% sealant (minimal drilling or air abrasion) or a full restoration
- Midwest: 30% preventive treatment
- Southwest: 33% full restoration
- South Central: 27% full restoration
- South Atlantic: 39% full restoration
- Northeast: 32% preventive treatment
You consider this patient to be at elevated risk for caries. Upon examination, the suspicious areas feel rough.

The highest percentages for specific treatment in each region were as follows:

- Western: 39% preventive resin restoration
- Midwest: 35% sealant (minimal drilling or air abrasion) or a preventive resin restoration
- Southwest: 50% full restoration
- South Central: 64% preventive resin restoration
- South Atlantic: 61% full restoration
- Northeast: 54% full restoration
You consider this patient to be at **low** risk for caries. Upon examination, the suspicious areas feel **smooth**.

The highest percentages for specific treatment in each region were as follows:
- Western: 44% no treatment
- Midwest: 50% no treatment
- Southwest: 37% no treatment
- South Central: 50% no treatment
- South Atlantic: 61% no treatment
- Northeast: 47% no treatment
You consider this patient to be at low risk for caries. Upon examination, the suspicious areas feel rough.

The highest percentages for specific treatment in each region were as follows:

- Western: 28% no treatment
- Midwest: 30% sealant (minimal drilling or air abrasion) or sealant (tooth structure not altered)
- Southwest: 33% preventive resin restoration
- South Central: 23% no treatment
- South Atlantic: 39% no treatment
- Northeast: 37% preventive treatment
You consider this patient to be at **elevated** risk for caries. Upon examination, the suspicious areas feel **smooth**.

The highest percentages for specific treatment in each region were as follows:

- Western: 28% sealant (minimal drilling or air abrasion)
- Midwest: 30% sealant (minimal drilling or air abrasion)
- Southwest: 39% sealant (minimal drilling or air abrasion)
- South Central: 32% preventive treatment
- South Atlantic: 44% preventive treatment
- Northeast: 47% preventive treatment
You consider this patient to be at elevated risk for caries. Upon examination, the suspicious areas feel rough.

The highest percentages for specific treatment in each region were as follows:

- **Western**: 33% preventive resin restoration
- **Midwest**: 30% sealant (minimal drilling or air abrasion)
- **Southwest**: 50% preventive resin restoration
- **South Central**: 32% preventive resin restoration
- **South Atlantic**: 22% preventive treatment, sealant (minimal drilling or air abrasion) and preventive resin restoration
- **Northeast**: 42% preventive resin restoration
You consider this patient to be at low risk for caries. Upon examination, the suspicious areas feel smooth.

The highest percentages for specific treatment in each region were as follows:
- Western: 39% no treatment
- Midwest: 25% no treatment
- Southwest: 33% preventive resin restoration
- South Central: 46% preventive treatment
- South Atlantic: 39% preventive treatment
- Northeast: 26% preventive treatment
You consider this patient to be at low risk for caries. Upon examination, the suspicious areas feel rough.

The highest percentages for specific treatment in each region were as follows:

- Western: 28% full restoration
- Midwest: 30% sealant (minimal drilling or air abrasion)
- Southwest: 39% preventive resin restoration
- South Central: 23% no treatment, sealant (minimal drilling or air abrasion), or preventive resin restoration
- South Atlantic: 39% preventive resin restoration
- Northeast: 26% preventive treatment, preventive resin restoration, full restoration
You consider this patient to be at *elevated* risk for caries. Upon examination, the suspicious area feels *smooth*.

The highest percentages for specific treatment in each region were as follows:

- Western: 33% preventive resin restoration
- Midwest: 35% preventive resin restoration
- Southwest: 38% preventive resin restoration
- South Central: 27% full restoration
- South Atlantic: 22% preventive treatment or preventive resin restoration
- Northeast: 26% preventive treatment
You consider this patient to be at elevated risk for caries. Upon examination, the suspicious areas feel rough.

The highest percentages for specific treatment in each region were as follows:
- Western: 56% full restoration
- Midwest: 50% full restoration
- Southwest: 33% full restoration
- South Central: 40% full restoration
- South Atlantic: 39% full restoration
- Northeast: 53% full restoration
You consider this patient to be at **low** risk for caries. Upon examination, the suspicious areas feel **smooth**.

The highest percentages for specific treatment in each region were as follows:

- **Western**: 33% preventive resin restoration
- **Midwest**: 50% full restoration, preventive resin restoration
- **Southwest**: 27% full restoration
- **South Central**: 39% full restoration
- **South Atlantic**: 39% full restoration
- **Northeast**: 32% no treatment
You consider this patient to be at **low** risk for caries. Upon examination, the suspicious areas feel **rough**.

The highest percentages for specific treatment in each region were as follows:

- Western: 44% full restoration
- Midwest: 55% full restoration
- Southwest: 61% full restoration
- South Central: 50% preventive resin restoration
- South Atlantic: 61% full restoration
- Northeast: 42% full restoration
The highest percentages for specific treatment in each region were as follows:

- 50% in the Western region chose full restoration
- 50% in the Midwest chose full restoration
- 56% in the Southwest region chose full restoration
- 50% in the South Central region chose full restoration
- 50% in the South Atlantic region chose full restoration
- 47% in the Northeast region chose full restoration

You consider this patient to be at elevated risk for caries. Upon examination, the suspicious areas feel smooth.
You consider this patient to be at elevated risk for caries. Upon examination, the suspicious areas feel rough.

The highest percentages for specific treatment in each region were as follows:
- Western: 78% full restoration
- Midwest: 70% full restoration
- Southwest: 78% full restoration
- South Central: 64% full restoration
- South Atlantic: 83% full restoration
Patient Characteristics Pre-Intervention

### Patient Gender

<table>
<thead>
<tr>
<th>Region</th>
<th>Male</th>
<th>Female</th>
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<tbody>
<tr>
<td>Western</td>
<td>41</td>
<td>59</td>
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<tr>
<td>Midwest</td>
<td>37</td>
<td>62</td>
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<tr>
<td>Southwest</td>
<td>39</td>
<td>61</td>
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<tr>
<td>South Central</td>
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<td>58</td>
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<tr>
<td>South Atlantic</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>Northeast</td>
<td>40</td>
<td>60</td>
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</table>

### Patient Ethnicity

<table>
<thead>
<tr>
<th>Region</th>
<th>Hispanic/Latino</th>
<th>Not Hispanic/Latino</th>
<th>Missing</th>
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<tbody>
<tr>
<td>Western</td>
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<td>76</td>
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<tr>
<td>Midwest</td>
<td>3</td>
<td>91</td>
<td>7</td>
</tr>
<tr>
<td>Southwest</td>
<td>44</td>
<td>54</td>
<td>3</td>
</tr>
<tr>
<td>South Central</td>
<td>2</td>
<td>92</td>
<td>6</td>
</tr>
<tr>
<td>South Atlantic</td>
<td>10</td>
<td>85</td>
<td>5</td>
</tr>
<tr>
<td>Northeast</td>
<td>12</td>
<td>86</td>
<td>3</td>
</tr>
</tbody>
</table>
Western | Midwest | Southwest | South Central | South Atlantic | Northeast
---|---|---|---|---|---
Less than high school diploma | 17 | 9 | 50 | 25 | 12 | 19
HS Graduate | 13 | 12 | 15 | 10 | 14 | 17
Some college | 29 | 36 | 14 | 31 | 30 | 19
Bachelor’s Degree | 32 | 27 | 11 | 22 | 30 | 22
Graduate Degree | 9 | 15 | 8 | 13 | 14 | 21
Pre-Intervention Phase

1. On which tooth is the suspicious area located?

**Premolar**

![Premolar chart]

**Molar**

![Molar chart]
2. Which **one** best describes the **luster** of the suspicious area? *(Check a single answer)*

![Luster Chart]

3. Which **one** best describes the **color** of the suspicious area? *(Check a single answer)*

![Color Chart]
4. Which aids were used in making (not confirming) the diagnosis? *(Check all that apply)*

![Aids usage chart]

5. If you used a dental explorer, did you experience roughness of the enamel surface upon light exploration?
6. Do any other teeth in the mouth have any of the following characteristics? *(Check all that apply)*

![Graph showing Other Teeth Characteristics](image1)

- Visible lesions/radiographic penetration of dentin: Western 25, Midwest 24, Southwest 43, South Central 37, South Atlantic 23, Northeast 21
- White spots on smooth surfaces: Western 25, Midwest 18, Southwest 34, South Central 27, South Atlantic 14, Northeast 17
- Restorations in the last 3 yrs: Western 36, Midwest 33, Southwest 48, South Central 35, South Atlantic 32, Northeast 29
- None of the above: Western 43, Midwest 45, Southwest 30, South Central 37, South Atlantic 49, Northeast 51

7. Does the patient have any of the following risk factors? *(Check all that apply)*

![Graph showing Patient Risk Factors](image2)

- Visible heavy plaque: Western 20, Midwest 10, Southwest 31, South Central 15, South Atlantic 12, Northeast 12
- High cariogenic diet: Western 10, Midwest 20, Southwest 41, South Central 12, South Atlantic 7, Northeast 8
- Xerostomia: Western 2, Midwest 3, Southwest 2, South Central 1, South Atlantic 1, Northeast 2
- Infrequent recall intervals: Western 21, Midwest 27, Southwest 28, South Central 18, South Atlantic 12, Northeast 17
- None of the above: Western 62, Midwest 60, Southwest 42, South Central 67, South Atlantic 74, Northeast 71
8. Has the patient been prescribed/recommended any of the following? *(Check all that apply)*

![Recommended Treatment Chart](chart1.png)

- **5000PPM Fl toothpaste**: 5, 10, 11, 5
- **Home Fl rinse**: 12, 7, 8, 19
- **Fl varnish/in-office Fl**: 21, 33, 16, 21
- **None of the above**: 41, 61, 65, 69

9. How would you classify the patient’s caries risk level? *(Check a single answer)*

![Patient Risk Level Chart](chart2.png)

- **Elevated**: 31.33, 49.36, 34.52, 20.14, 28.93
- **Low**: 68.67, 50.64, 65.48, 79.86, 71.07
10. Before you provide any treatment, how deep do you estimate that the deepest part of the suspicious caries lesion is? (Check a single answer)

11. I chose to treat the tooth today by (Check all that apply):

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### Preoperative depth estimation

<table>
<thead>
<tr>
<th>Region</th>
<th>Western</th>
<th>Midwest</th>
<th>Southwest</th>
<th>South Central</th>
<th>South Atlantic</th>
<th>Northeast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer 1/2 enamel</td>
<td>42</td>
<td>49</td>
<td>40</td>
<td>33</td>
<td>45</td>
<td>35</td>
</tr>
<tr>
<td>Inner 1/2 enamel</td>
<td>29</td>
<td>34</td>
<td>32</td>
<td>26</td>
<td>27</td>
<td>15</td>
</tr>
<tr>
<td>Outer 1/3 dentin</td>
<td>25</td>
<td>13</td>
<td>21</td>
<td>27</td>
<td>21</td>
<td>31</td>
</tr>
<tr>
<td>Middle 1/3 dentin</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Inner 1/3 dentin</td>
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<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Uncertain</td>
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<td>2</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>9</td>
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</table>

### Treatment Decision

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Western</th>
<th>Midwest</th>
<th>Southwest</th>
<th>South Central</th>
<th>South Atlantic</th>
<th>Northeast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor</td>
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<td>70</td>
<td>38</td>
<td>57</td>
<td>74</td>
<td>50</td>
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<tr>
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<td>33</td>
<td>28</td>
<td>40</td>
<td>31</td>
<td>21</td>
</tr>
<tr>
<td>In-office FL</td>
<td>11</td>
<td>21</td>
<td>17</td>
<td>18</td>
<td>5</td>
<td>6</td>
</tr>
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<td>RX FL</td>
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<td>11</td>
<td>1</td>
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<td>5</td>
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<tr>
<td>Sealant</td>
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<td>7</td>
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<td>4</td>
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<tr>
<td>Preventive resin restoration</td>
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<td>7</td>
<td>21</td>
<td>16</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Full restoration</td>
<td>21</td>
<td>10</td>
<td>36</td>
<td>24</td>
<td>16</td>
<td>36</td>
</tr>
</tbody>
</table>
12. When you treated the lesion, what did you find? *(Check a single answer)*