

Evaluating the Perception Moisture Detection Tools Have on Infection Prevention Measures for Flood and Leak Remediation



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Learning Objectives

- Learn about how moisture detection tools, such as infrared cameras and moisture meters, are utilized in healthcare settings to manage environmental emergencies like floods and leaks.
- Assess the impact and effectiveness of these tools in identifying the extent of environmental damage, as perceived by healthcare professionals involved in remediation efforts.
- Examine how the use of moisture detection tools influences the speed of remediation processes and understand their role in enhancing infection control during and after environmental emergencies.

Background

Effective management of environmental emergencies such as floods and leaks are vital for patient safety and infection prevention in healthcare settings. Historically, the evaluation of flood or leak incidents in healthcare settings primarily relied on visual inspection and the use of moisture meters. This study evaluates the impact of using a combination of moisture detection tools, like infrared cameras and moisture meters, on remediation efforts for floods and leaks, and their role in infection prevention.

Methods

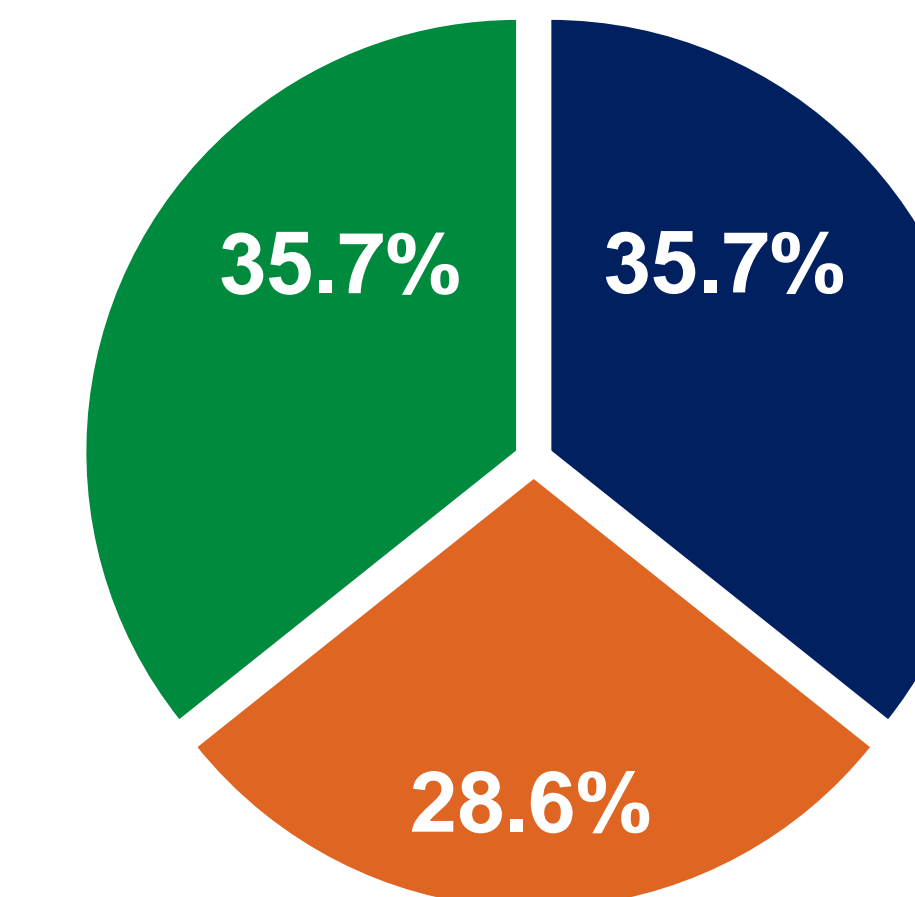
A quantitative survey was distributed to healthcare staff involved in remediation efforts, assessing the effectiveness of moisture detection tools. The survey focused on ease of use, perception related to damage assessment effectiveness, impact on remediation speed, and impact on infection prevention practices.

Results

The survey received a 60% response rate with 14 out of 23 invitees responding. A significant majority (92.9%, n=13) felt that incidents with these tools were 'much better managed' compared to previous incidents without these tools. Additionally, 78.6% (n=11) observed a 'highly significant impact' on infection prevention during and after incidents. For environmental damage assessment, half of the respondents rated the tools 'very effective', while the rest found them 'somewhat effective'. Unanimously, respondents supported the continued use of these tools, with 85.7% (n=12) strongly recommending their use.

How would you best describe your role/department?

- Hospital Admin/ Nursing Leadership
- Facilities/Engineering
- Infection Prevention (Facility-based)



The survey asked staff to answer the following questions which were converted to a scale (1-4) with 4 being the highest rating and 1 being the lowest rating.

Question	4	3	2	1
Ease of Interpreting Results: How easy was it to interpret the results provided by the moisture detection tools (infrared camera and moisture meter)?	9	5	0	0
Perceived Effectiveness: How effective do you think these tools were in identifying the full extent of damage caused by the flood or leak?	7	7	0	0
Comparison with Previous Incidents: Compared to previous flood or leak incidents without these tools, how would you rate the overall management and outcomes of recent incidents with the tools?	13	1	0	0
Impact on Infection Control: How significantly do you believe the moisture detection tools impacted infection control during and after flood or leak situations?	11	3	0	0
Recommendations for Future Use: Would you recommend the continued use of moisture detection tools in future flood or leak situations?	12	2	0	0

Survey Comments:

- "Greatly appreciated the efforts put in by this team. They assisted in getting the project issues identified and escalated."
- "I've been in Engineering for many years this has shown the best results seen for water damage."

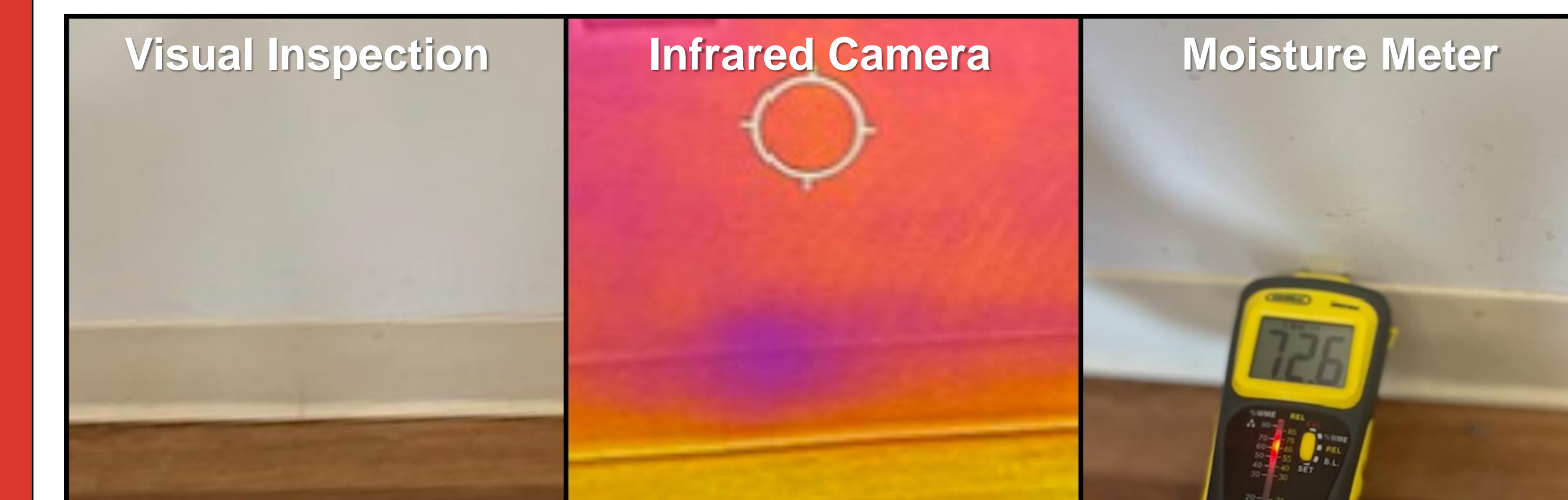
The Tools

Infrared Cameras:

Used to detect surface temperature. Areas of potential moisture show up as cooler than the surrounding areas.

Moisture Meters:

Some moisture meters use metal prongs to penetrate wallboard. Some are non-destructive and involve resting the meter on the surface of the material.



Conclusions

The feedback from the survey suggests that including the combination of these moisture detection tools with traditional methods enhances the management of floods and leaks in healthcare settings. The approval of staff highlights their confidence in the tools' ability to accurately assess damage and improve incident management, highlighting their importance in ensuring patient safety and aiding proactive infection prevention and control practices.

References

- National Institutes of Health. (2023). Moisture and Mold Remediation Standard Operating Procedures. Division of Occupational Health and Safety, Mold and Water Intrusion Program.

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Nothing to disclose