INTRODUCTION

Silver diamine fluoride (SDF) is considered one of many tools in a caries management protocol that also includes educational and motivational interviewing interventions with patients

SDF is useful for patients who have limited access to routine oral health services including children and elders (as it forestalls incipient decay and reduces pain/sensitivity in carious teeth)

Dental hygienists (DHs) are well positioned by training and education to provide preventive and educational services, including application of SDF

Dental board dicta describing permissions for DHs to apply SDF, a promising agent for both the prevention and arrest of dental caries.

Study Design:

Examined state-level regulations and dental board dicta describing permissions for DHs to apply SDF, including level of supervision, required education, limitations on populations and settings, requirements for prior dental authorization, and payment policies.

Principle Findings

This research found variation across states in classifications of SDF, levels of required supervision for DHs, prior authorization requirements, and payment policies. About half of states allowed DHs to apply SDF under general supervision in November 2020. About a quarter of state Medicaid programs did not reimburse for SDF applications, while those that did had different conditions and rates. This study resulted in production of an interactive infographic that supplies detailed information by individual state.

Conclusions

Creating a single consistent source of reliable information on SDF can allow policymakers, advocates, and clinicians, among others, to promote changes in state laws, rules, and regulations governing SDF use and ultimately increase access to an effective approach to prevent and treat caries.

METHODS

Examined state-level regulations and dental board opinions describing permissions for DHs to apply SDF, including level of allowable supervision, required education, limitations on populations and settings, requirements for prior dental authorization, and state payment policies

Examined state Medicaid rules to ascertain whether SDF application was reimbursable, under what conditions, and whether there were any age restrictions for prior dental authorization, and state payment policies

Scope of practice for DHs may allow fluoride or SDF applications

Age limitation in Medicaid guidance for payment of fluoride or SDF applications

Dental board recommendations or requirements for specific education for a DH to apply SDF under all or specific conditions

SDF clearly within scope of practice (statute, regulation, or board opinion)

RESULTS

Application of SDF by DHs varied widely across states in terms of:

- SDF clearly within scope of practice (statute, regulation, or board opinion)
- Lowest level of supervision under which a DH can apply SDF
- Scope of practice for DHs may allow fluoride or SDF applications
- Age limitation in Medicaid guidance for payment of fluoride or SDF applications
- Dental board recommendations or requirements for specific education for a DH to apply SDF under all or specific conditions
- State Medicaid program covers CDT 1354 (interim caries arresting medicament application)

Level of required supervision is critical to enabling provision of SDF in public health settings

About half of states (n=25) allowed DHs to apply SDF under general supervision in November 2020 (Figure 2)

RESULTS (cont.)

Payment restrictions: state Medicaid program covering the provision of services

More than 3-quarters of state Medicaid programs (n=39) reimbursed for SDF applications in November 2020; yet, they had different conditions under which it was allowed and different reimbursement rates and age restrictions (Figure 3)

CONCLUSIONS

Significant variation in conditions for the application of SDF across states may discourage its integration into practice

Medicaid reimbursement is essential to foster wider uptake and use of SDF

Interest in effective preventive and palliative dental interventions has increased during the COVID-19 pandemic

Creating a single consistent source of reliable information on SDF can allow policymakers, advocates, and clinicians to promote changes in state laws, rules, and regulations governing SDF use and ultimately increase access to an effective approach to prevent and treat caries.

AKNOWLEDGEMENTS

The authors wish to thank Dr. Elizabeth Mertz, professor at the University of California, San Francisco, Dr. Jeremy Horst, Director, Clinical Innovation for DentaQuest, and Ms. Ann Lynch, director of advocacy and education for the American Dental Hygienists’ Association for their help with data compilation.

This work is supported by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of an award totaling $449,821. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS, or the US Government.