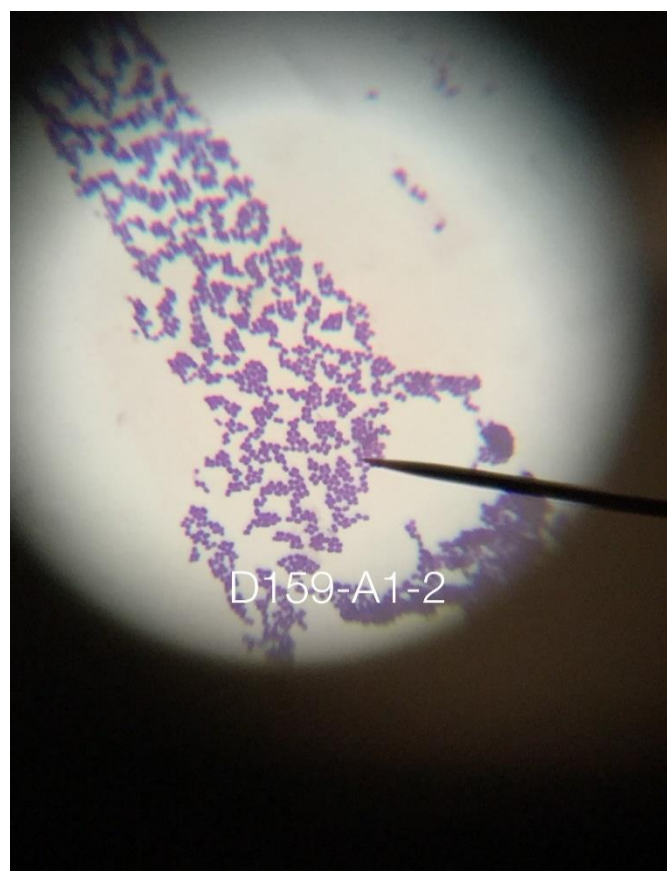


# Identification of Effective Disinfectants on Bacterial Growth

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## Introduction

- Oronasopharyngeal suctioning (ONPS), using Blue Bulb Syringes (nasal aspirators), has been a traditional intervention used on neonates immediately after delivery for decades
- Studies suggest that ONPS may cause infection as a result of repeated use of the suctioning device<sup>2, 4</sup>
- There are virtually no studies which have specifically examined disinfection techniques for ONPS devices



## Significance to Nursing

- Microorganisms such as bacteria cause disease
- Blue Bulb Syringes are used repeatedly and are considered multi-use devices
- Pathogenic bacteria have been identified in clinical isolates taken from Blue Bulb Syringes (nasal aspirators) used on neonates
- Disinfection is needed if ONPS is to be used repeatedly
- Effective disinfection methods to kill the most common bacteria found in Blue Bulb Syringes have not yet been identified
- An effective, low-cost disinfection method safe for use on ONPS devices used on neonates and young children is essential for nurses and parents in providing better health care to babies in their charge

## References

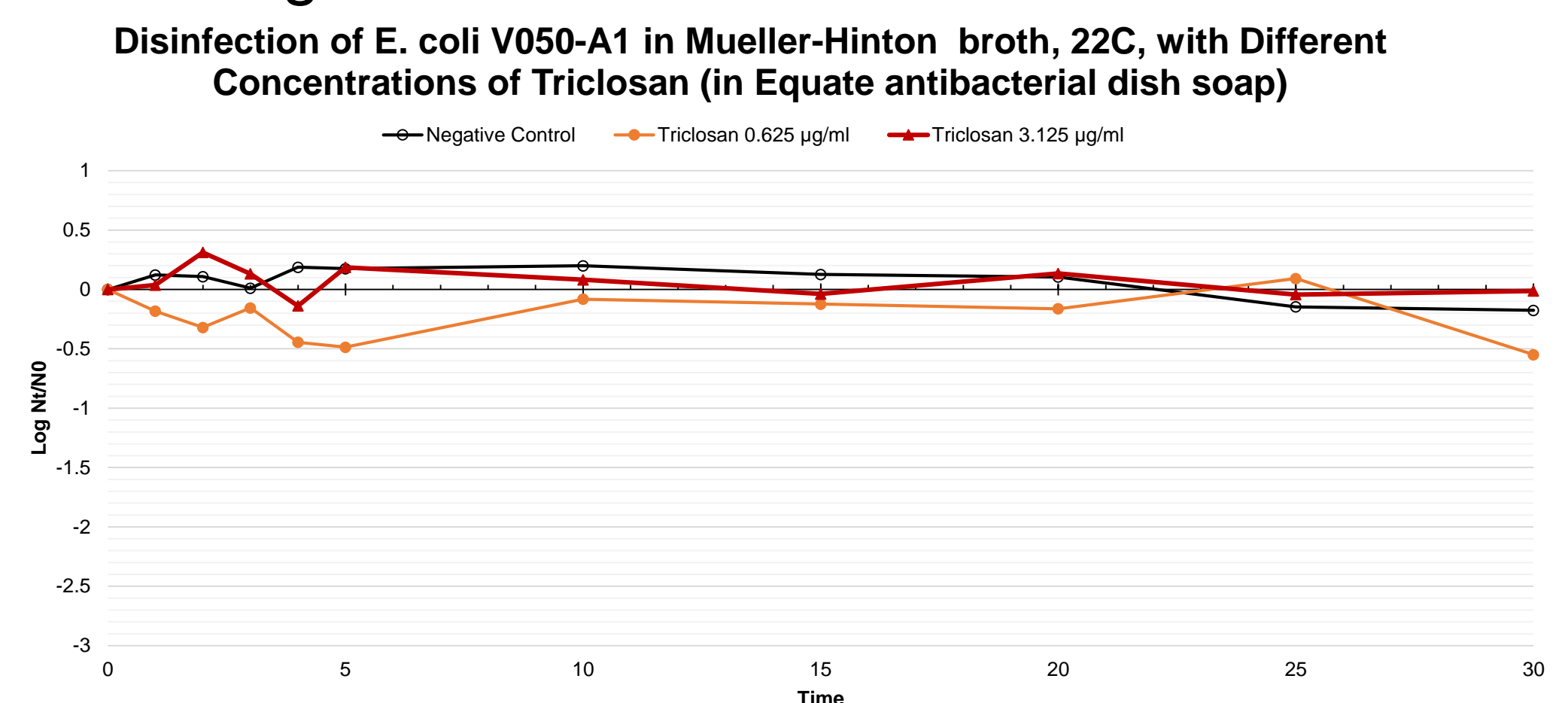
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## Acknowledgements

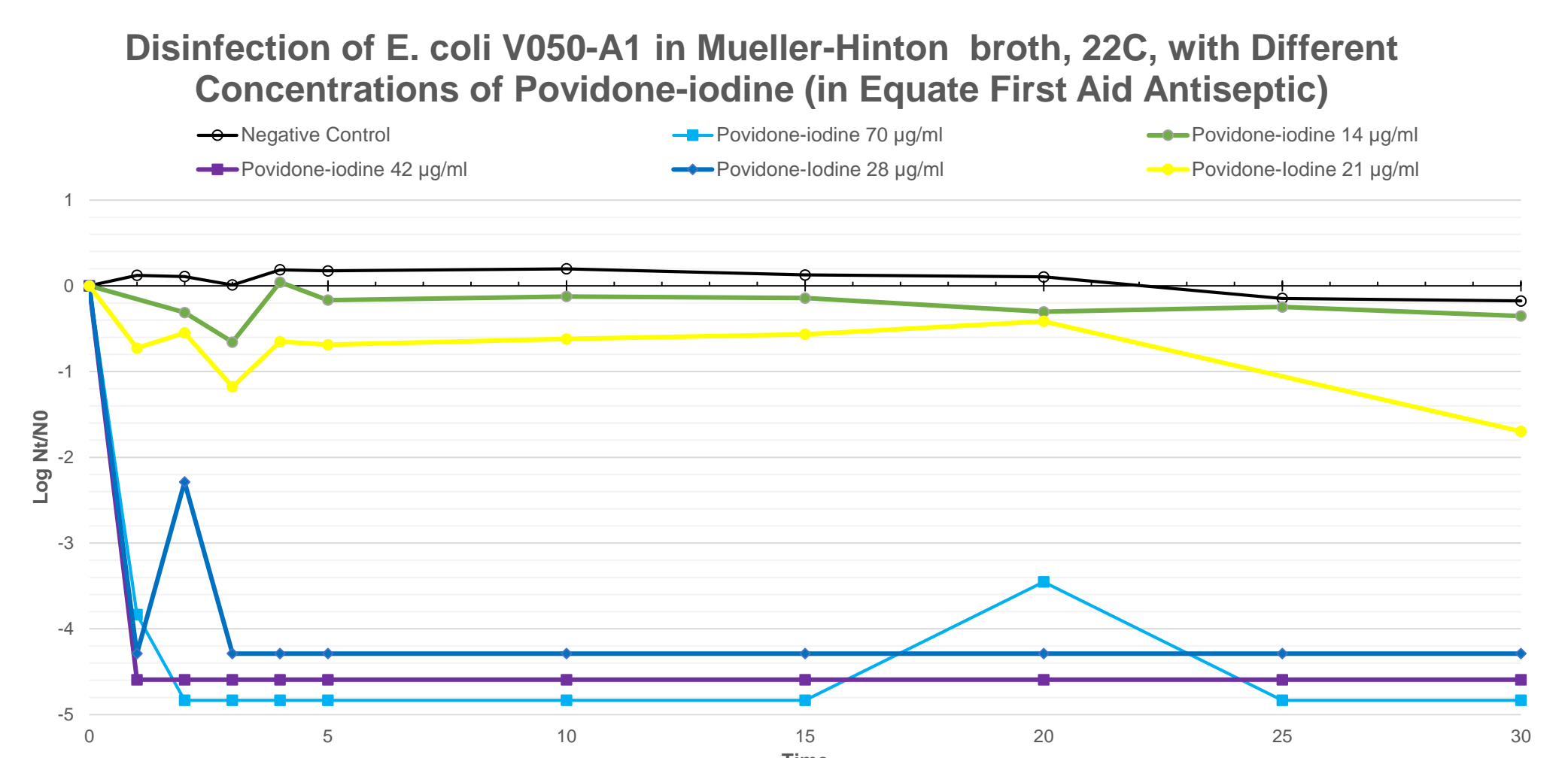
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The CLEAR Project Team  
UAH Office of the Provost, UAH Office of the Vice President for Research and Economic Development, and the Alabama Space Grant Consortium

## Key Findings & Results

Triclosan does not appear to be effective in inactivating bacterial cells



Povidone-iodine appears to be effective in inactivating bacterial cells, especially at high concentration



## Conceptual Framework

### Abdellah's Theory of 21 Problems in Nursing

Nurses have a duty to promote safety by taking action in patient care to prevent disease<sup>3</sup>

### Germ Theory of Disease

**Pasteur** – Heat can kill bacteria<sup>1</sup>

**Koch's Postulates** – Specific microorganisms cause specific diseases<sup>1</sup>

**Lister** – Antiseptic surgical technique significantly reduces infection and/or death<sup>5</sup>

**Henle** – Investigated how microorganisms are spread<sup>5</sup>