be measured in dollars and lives.

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Antibacterial Features of Lubraseptic Jelly

To the Editor:

Lubraseptic jelly (Baker-Norton Pharmaceuticals, Miami, FL) is a water-soluble lubricant possessing antimicrobial properties. The manufacturer's suggested uses include as a lubricant of catheters and scopes prior to insertion in urologic, rectal, and vaginal exams and for use as a sterile dressing on burns, abrasions, and decubitus ulcers.' The active ingredients are 0.12% amylphenyl phenol complexes and 0.007% phenyl mercuric nitrate, ingredients that function as both a local anesthetic and an antibacterial.[1] Initial, limited studies with this compound[2] demonstrated antimicrobial activity against *Staphylococcus aureus* and *Proteus vulgaris.* We evaluated the antimicrobial efficacy of Lubraseptic and its components against a variety of contemporary bacterial pathogens focusing on urinary tract organisms. This is, to our knowledge, the first report of the broad in vitro antimicrobial qualities of this product that has been in use since the 1960s.

One hundred microorganisms were tested, including a variety of gram-positive and gram-negative bacteria and yeast species. Agar dilution methods with the appropriate medium adjustments as described by the National Committee for Clinical Laboratory Standards (NCCLS) were used." Dilution series of jelly base alone, jelly base with 1% phenol, and dilution series of the Lubraseptic active ingredients only were tested. The initial concentration tested was a 1:10 dilution of the marketed product concentration, or a 10% concentration. The additional dilutions tested were 10 log, dilutions of the initial test concentration. The range of concentrations tested was 1:10 (10%) to 1:1,024 (0.01%) of the manufactured concentrations of the active components.

The results of testing active component-free jelly, phenol-supplemented jelly, and the active components are listed in the Table. No antibacterial or antifungal activity was observed with the jelly component alone or the jelly with added phenol (0% susceptible for all organisms). The active ingredients (amyl-phenyl phenol complex and phenyl mercuric nitrate) were very potent against all organisms tested, with a minimum inhibitory concentration (MIC) range from ~0.01% to 5% of the concentrations used in the Lubraseptic formulation. *The Proteae Providencia rettgeri, Providencia stuartii, Morganella morganii), Staphylococcus* species, and *Candida* species were the most susceptible to the active ingredientswith MICs of ~0.02% for all isolates tested. The entemcocci were the least inhibited organisms, but still were susceptible to (inhibited by) 5% concentrations of the active ingredients. The highest Lubrasep tic MICs observed were the 1:20 (5%) dilution of the active ingredients.

We observed that the active components of Lubraseptic jelly were active against a variety of bacterial and yeast pathogens that may be associated with catheter infection or urosepsis. The in vitro antimicrobial properties of this product were considered noteworthy, but the contemporary clinical efficacy of Lubraseptic jelly use in reducing catheter- or procedure-related infection remains to be determined in structured, controlled trials.

TABLE

ANTIMICROBIAL ACTIVITY OF ACTIVE INGREDIENTS OF LUBRASEPTIC JELLY, EXPRESSED AS PERCENTAGE OF FULL-STRENGTH REQUIRED TO INHIBIT GROWTH OR PROPORTION OF ORGANISMS

	MIC* (as % of product concentration)			
Organism (no. tested)	50%	90%	Range	% Susceptible-t
Candida species (10)	so.01	so.01	SO.01	100
Corynebacterium jeikeium (10)	1.25	1.25	0.6 to 1.25	100
Corynebacterium parvum (10) ‡	1.25	2.5	1.25 to 2.5	100
Enterococcus species (10)	5	5	5	100
Staphylococcus aureus (10)	SO.01	SO.01	SO.01 to 0.02	100
Staphylococcus, coagulase-negative (10)	SO.01	0.02	SO.01 to 0.02	100
Streptococcus pyogenes (10)	1.25	1.25	0.16 to 2.5	100
Escherichia *coli* (10)	0.16	0.3	0.16 to 0.3	100
Proteae (10)	co.01	0.02	GO.01 to 0.02	100
Pseudomonas aeruginosa (10)	0.04	0.08	≤0.01 to 0.16	100

* MIC 50% and MIC 90% refer to the percentage of full concentration of Lubraseptic jelly inhibiting 50% and 90% of tested strains. respectively.
† Percentageof *organisms* susceptible at ≤10% of the clinical formulation concentration of the activecomponents.
‡ Formerly called *Propionibacterium acnes.*

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