

2963

## Observation on hand sterilization.

W. HOWARD BARBER and W. C. NOBLE.

[From the Departments of Experimental Surgery and Bacteriology, New York University and Bellevue Hospital Medical College, New York City.]

During the years 1917-1922, inclusive, fourth year medical students were instructed to prepare their hands for surgical operations by scrubbing for five minutes in running hot tap water and surgical soap, and by immersion of hands in one of the following germicidal solutions: alcohol, 70 per cent; alcohol, 95 per cent; bichloride and alcohol (Harrington); or by following the soap and water scrubbing by the use of lime and soda. The technic was in all practical respect identical with that in common use in the hospital operating-rooms. Cultures were taken after the scrubbing in soap and water, and after the use of one of the antiseptic solutions. The results follow:

Results of cultures taken from hands of medical students after soap and water scrubbing and use of antiseptic solutions.

	After soap-water	Alc. 70	Alc. 95	Bichl.-Alc.	Lime-soda	Antisep. Sol.
Staphylococcus .....	90	15	3	13	6	39
<i>Bac. coli</i> .....	11	0	0	0	0	1
<i>Bac. subtilis</i> .....	2	1	0	2	0	1
Sterile .....	10	3	10	6	3	26
Percent sterile cultures .....	9	16	77	29	33	39

In interpreting the above data, allowance should be made for the placing of wet hands in the respective solutions. The reduction of the strengths of the solutions from this source applied particularly to the alcohols. "Antisep. Sol." indicates some one of the foregoing antiseptic solutions, the particular one not being clearly apparent from the records.