

SUPPORTING INFORMATION

EFFECT OF MONOCHLORAMINE TREATMENT ON COLONIZATION OF A HOSPITAL WATER DISTRIBUTION SYSTEM BY *LEGIONELLA* SPP.: A 1 YEAR EXPERIENCE STUDY.

AUTHORS:

Benedetta Mancini, Department of Biological, Geological, and Environmental Sciences, BiGeA, University of Bologna, via S. Giacomo 12, 40126, Bologna, Italy.

Maria Scurti, Department of Biological, Geological, and Environmental Sciences, BiGeA, University of Bologna, via S. Giacomo 12, 40126, Bologna, Italy.

Ada Dormi, Department of Medical and Surgical Science, DIMEC, University of Bologna, via S. Giacomo 12, 40126 Bologna, Italy.

Antonella Grottola, Regional Reference Laboratory for Clinical Diagnosis of Legionellosis, Unit of Microbiology and Virology, Modena University Hospital, via del Pozzo 71, 41124, MODENA, Italy.

Andrea Zanotti, ITACA srl ITACA s.r.l., via Remigia, 19, 40068, San Lazzaro di Savena (BO), Italy.

Sandra Cristino, Department of Biological, Geological, and Environmental Sciences, BiGeA, University of Bologna, via S. Giacomo 12, 40126, Bologna, Italy.

E-mail: sandra.cristino@unibo.it

Tel: 00390512094811; Fax: 00390512094829

Supporting Information: Pages 3 - Tables 4

- S1** Percentage reduction in *Legionella* spp. contamination (T0 vs T4)
- S2** Percentage reduction in Heterotrophic bacteria 36°C (T0 vs T4)
- S3** Percentage reduction in *Pseudomonas aeruginosa* contamination (T0 vs T4)
- S4** Percentage reduction in *Legionella* spp. contamination (mean values ClO₂ vs NH₂Cl)

SUPPORTING TABLES

S1: Percentage reduction in *Legionella* spp. contamination (T0 vs. T4)

Sampling points	<i>Legionella</i> spp. log10 cfu/L T0	<i>Legionella</i> spp. log10 cfu/L T4	% decrease T0 vs. T4	Student's t test	p value
1	0,00	0,00	0	4,6119	0,0002
2	3,97	0,00	100		
3	2,99	0,00	100		
4	2,44	0,00	100		
5	2,40	0,00	100		
6	1,88	0,00	100		
7	3,00	0,00	100		
8	2,18	0,00	100		
9	1,72	0,00	100		
10	3,63	2,65	18		
11	3,22	2,24	30		

S2: Percentage reduction in Heterotrophic bacteria 36°C (T0 vs. T4)

Sampling points	Heterotrophic bacteria 36°C log10 cfu/mL T0	Heterotrophic bacteria 36°C log10 cfu/mL T4	% decrease (T0 vs. T4)	Student's t test	p value
1	0,30	0,00	100	4,1956	0,0004
2	1,00	0,00	100		
3	3,18	0,00	100		
4	1,45	0,70	52		
5	1,57	0,00	100		
6	2,44	0,00	100		
7	2,37	0,00	100		
8	1,81	1,30	28		
9	2,97	0,80	73		
10	4,40	1,74	60		
11	2,22	1,11	50		

S3: Percentage reduction in *P. aeruginosa* contamination (T0 vs. T4)

Sampling points	<i>Pseudomonas aeruginosa</i> log10 cfu/100mL T0	<i>Pseudomonas aeruginosa</i> log10 cfu/100mL T4	% decrease (T0 vs. T4)	Student's t test	p value
1	0,00	0,00	0	0,0007	0,9943
2	0,00	0,00	0		
3	0,00	0,00	0		
4	0,00	0,00	0		
5	0,00	0,00	0		
6	0,00	0,00	0		
7	0,00	0,00	0		
8	2,67	3,00	12		
9	0,00	0,00	0		
10	4,20	3,92	7		
11	0,00	0,00	0		

S4: Percentage reduction in *Legionella* spp. contamination (mean values ClO₂ vs. NH₂Cl)

Sampling points	ClO ₂ mean values (previous treatment)	NH ₂ Cl mean values (test period)	% reduction (ClO ₂ vs. NH ₂ Cl)	Student's t test	p value
1	0,00	0,00	0	2,79	0,011
2	2,00	1,33	33		
3	2,50	0,93	63		
4	2,20	0,87	60		
5	2,80	1,60	43		
6	2,40	0,70	71		
7	2,60	1,10	58		
8	2,60	1,23	53		
9	1,90	0,63	67		
10	3,98	2,72	32		
11	4,00	2,99	25		