

SUPPLEMENTARY MATERIALS

Advances in Legionella control by a new formulation of hydrogen peroxide and silver salts in a hospital hot water network

Luna Girolamini¹, Ada Dormi², Tiziana Pellati³, Paolo Somaroli³, Davide Montanari⁴, Andrea Costa⁴, Francesca Savelli⁵, Andrea Martelli⁵, Antonella Grottola⁶, Giulia Fregni Serpini⁶, Sandra Cristino^{1*}

¹ Department of Biological, Geological, and Environmental Sciences, BiGeA, University of Bologna, Bologna, Italy
Affiliation; luna.girolamini2@unibo.it (LG); sandra.cristino@unibo.it (SC);

² Department of Medical and Surgical Science, DIMEC, University of Bologna, Bologna, Bologna Italy;
ada.dormi@unibo.it (AD);

³ GVM Care & Research, Lugo di Ravenna, Ravenna, Italy. tpellati@gvm-engineering.it (TP); psomaroli@gvm-engineering.it (PS);

⁴ Eta-Beta S. r. l., Forlì, Forlì Cesena, Italy. andrea@etabeta.com (AC); manutenzione-mch@gvmnet.it (DM);

⁵ Water Team S. r. l., Cesena, Forlì Cesena, Italy. francesca@waterteam.it (FS); andream@waterteam.it (AM);

⁶ Regional Reference Laboratory for Clinical Diagnosis of Legionellosis, Unit of Microbiology and Virology, Modena University Hospital, Modena, Italy. grottola.antonella@aou.mo.it (AG); fregniserpini.giulia@aou.mo.it (GFS).

* Correspondence: sandra.cristino@unibo.it; Tel.: +39-0512094811 (S.C.)

Figure S1: Site map of MCH, Cotignola (RA), Italy. A representative view of MCH and a map of its three buildings: MCH picture (A) and MCH planimetry (B).

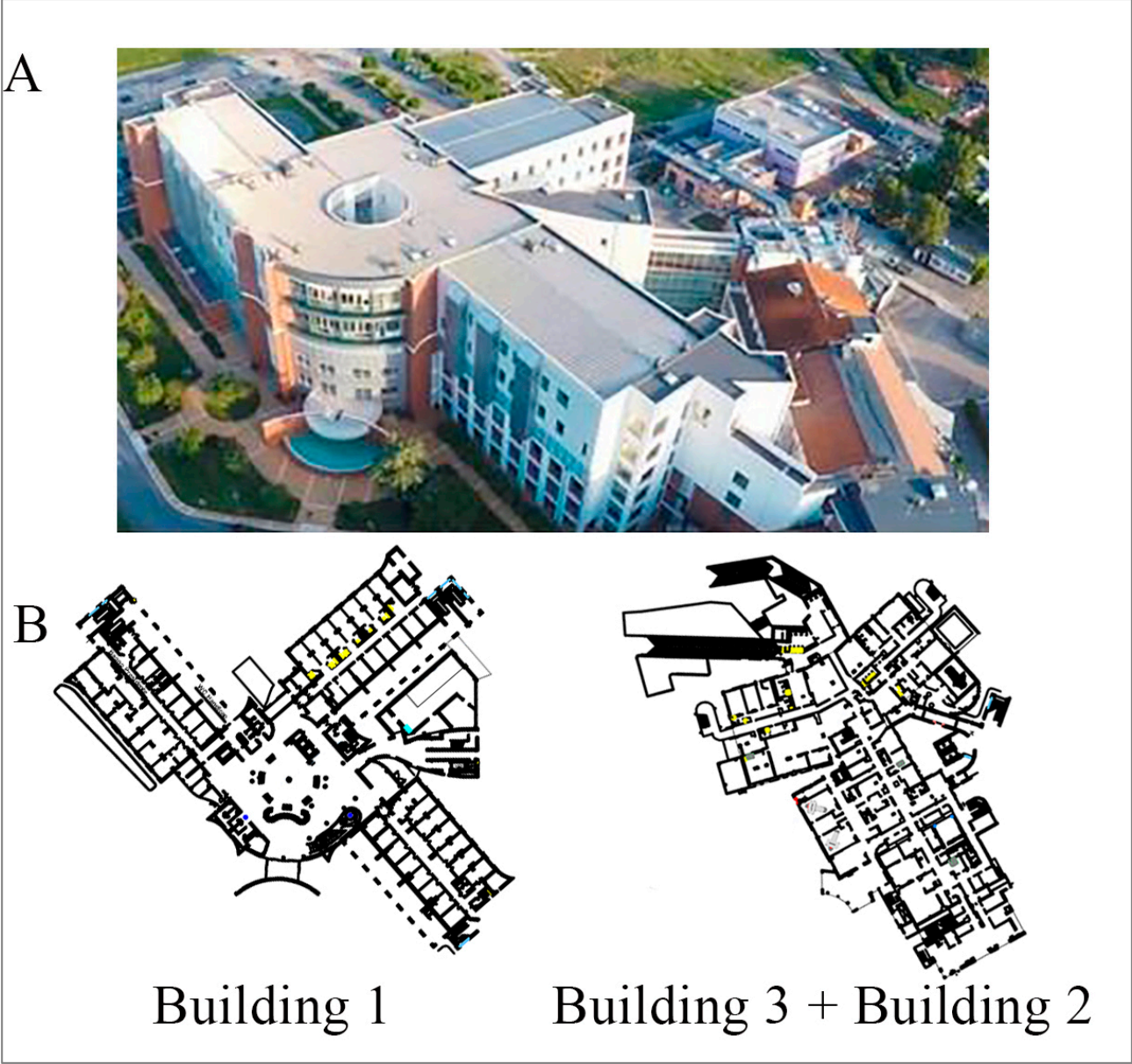


Table S1: MCH structure and water outlet characteristics

Building 1									
Area (m ²)	Plumbing type	Year of construction/ year of works completion	Renovation time	Shock treatment	Floor	Water outlets	In-patient rooms	Sampling points	Water consumption (m ³)/ year
18539.93	Galvanized iron/ Polyvinylchloride (PVC) multilayer	2001/ 2015	2005 2010 2012 2013	Feb-Mar 2015 Jul-Aug 2015	Floor 0	50		4	1913
					Floor 1	25		4	
					Floor 2	119	27	5	
					Floor 3				
					Floor 4	73		4	
					Floor 5	36		4	
Total water outlets						303			
Total in-patient rooms							27		
Total sampling points								21	
Building 2									
Area (m ²)	Plumbing type	Year of construction/ year of works completion	Renovation time	Shock treatment	Floor	Water outlets	In-patient rooms	Sampling points	Water consumption (m ³)/ year
8178.68	Galvanized iron	1973/ 1973	No works	No shock	Floor -1	4		1	3017
					Floor 0	65		5	
					Floor 1	92	25	5	
					Floor 2	104	26	5	
					Floor 3	66	18	3	
					Floor 4	5	1	2	
Total water outlets						336			
Total in-patient rooms							70		
Total sampling points								21	
Building 3									
Area (m ²)	Plumbing type	Year of construction/ year of works completion	Renovation time	Shock treatment	Floor	Water outlets	In-patient rooms	Sampling points	Water consumption (m ³)/ year
1271.06	Galvanized iron/ Polyvinylchloride (PVC) multilayer	2001/ 2015	2001 2014 2015	No shock	Floor -1	7		2	589
					Floor 0	3		2	
					Floor 1	6		2	
					Floor 2	4		1	
					Floor 3	59	14	3	
					Floor 4	50	11	3	
Total water outlets						129			
Total in-patient rooms							25		
Total sampling points								13	