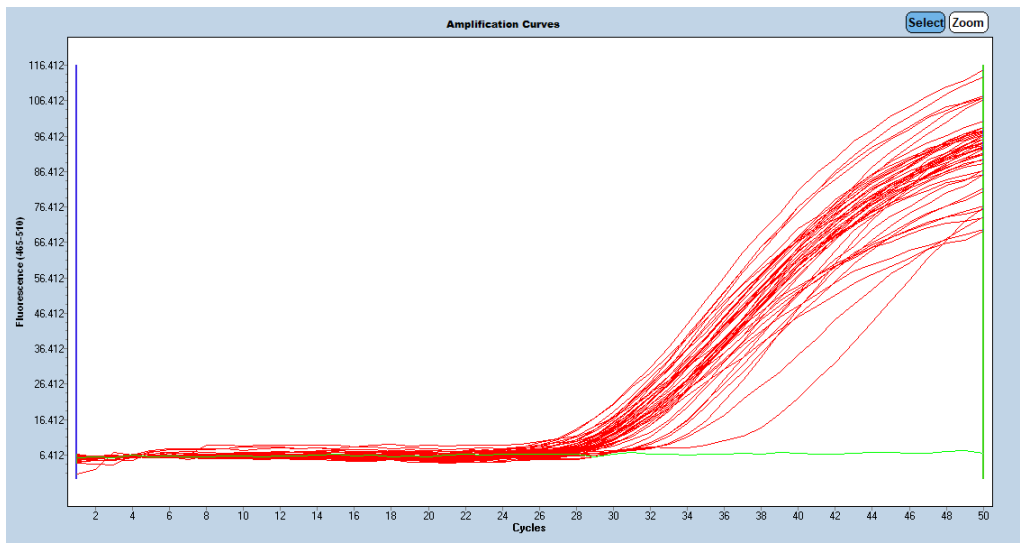
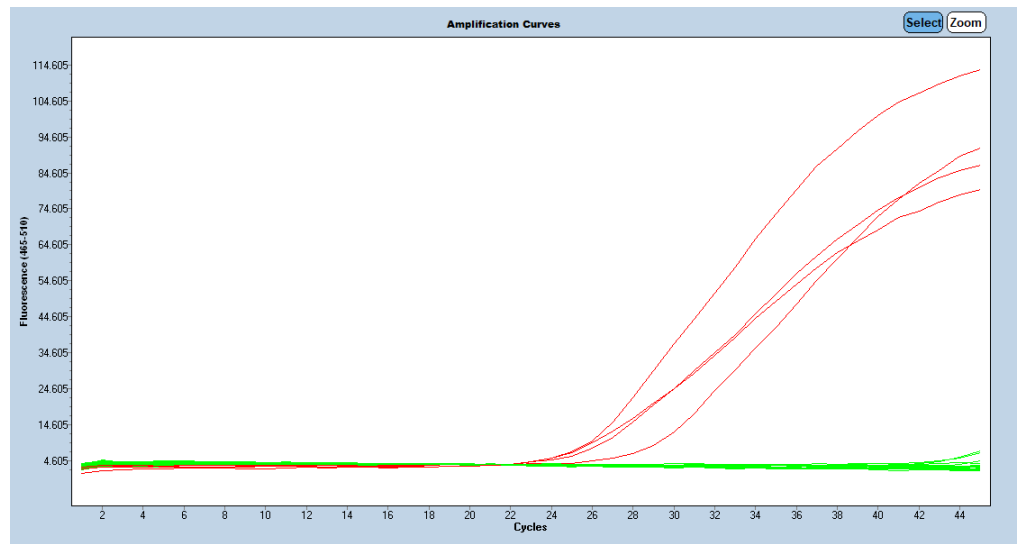


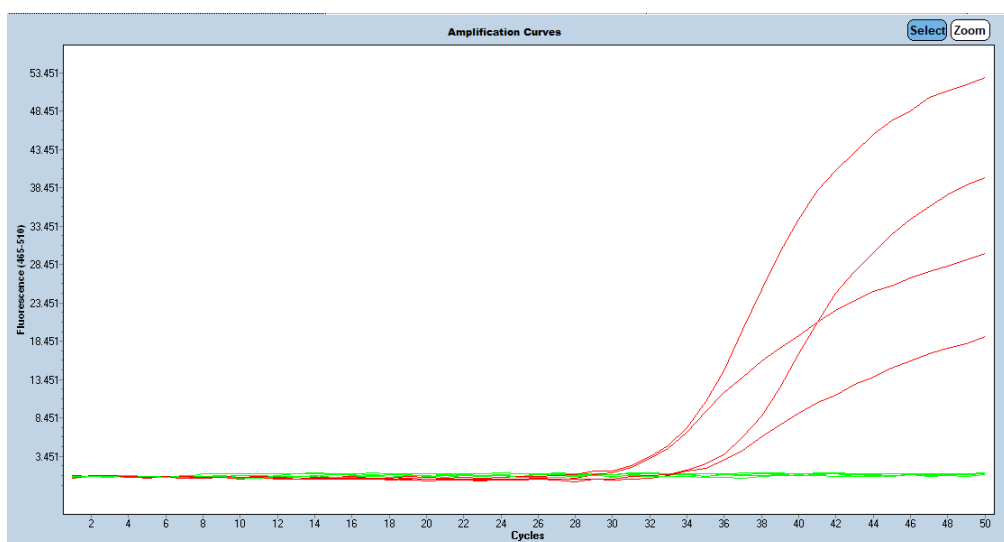
(a)



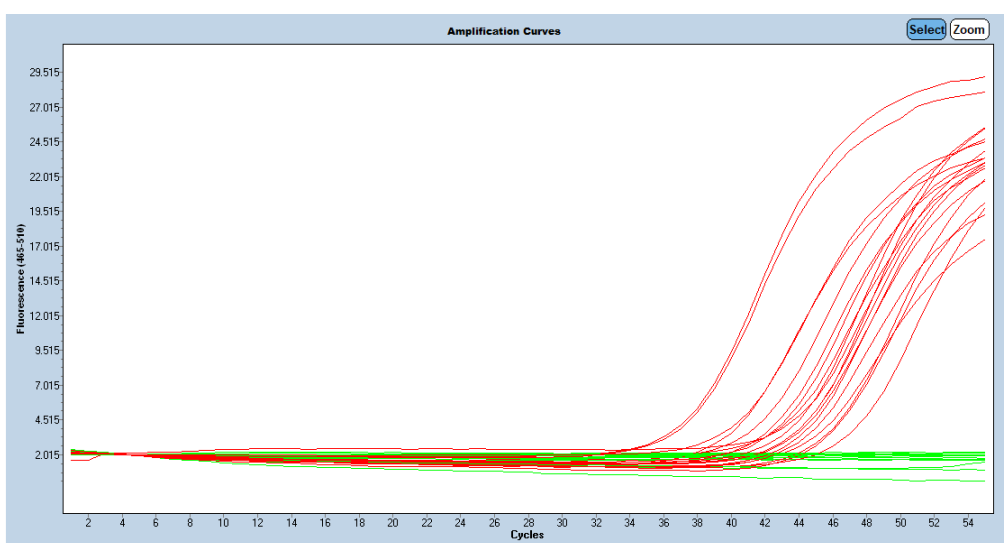
(b)



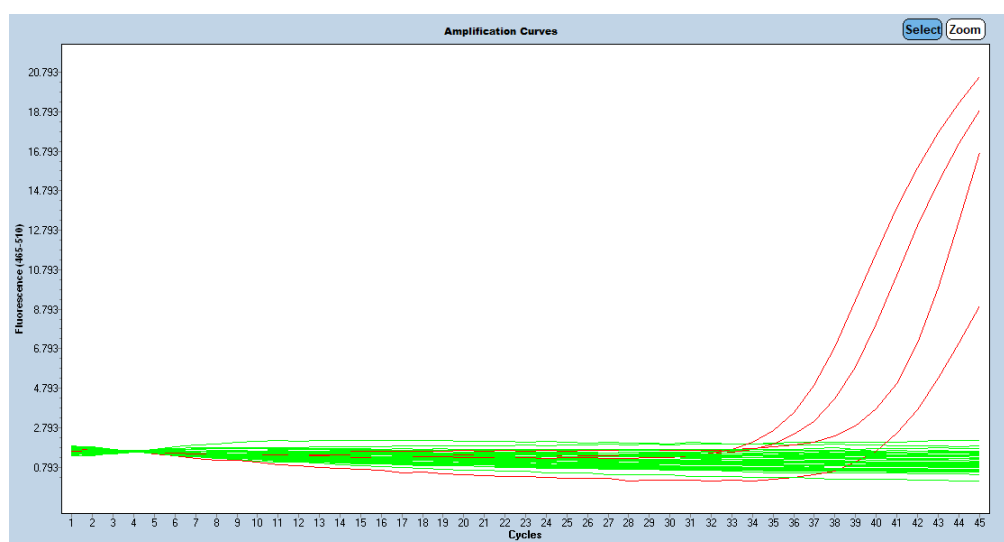
(c)



(d)

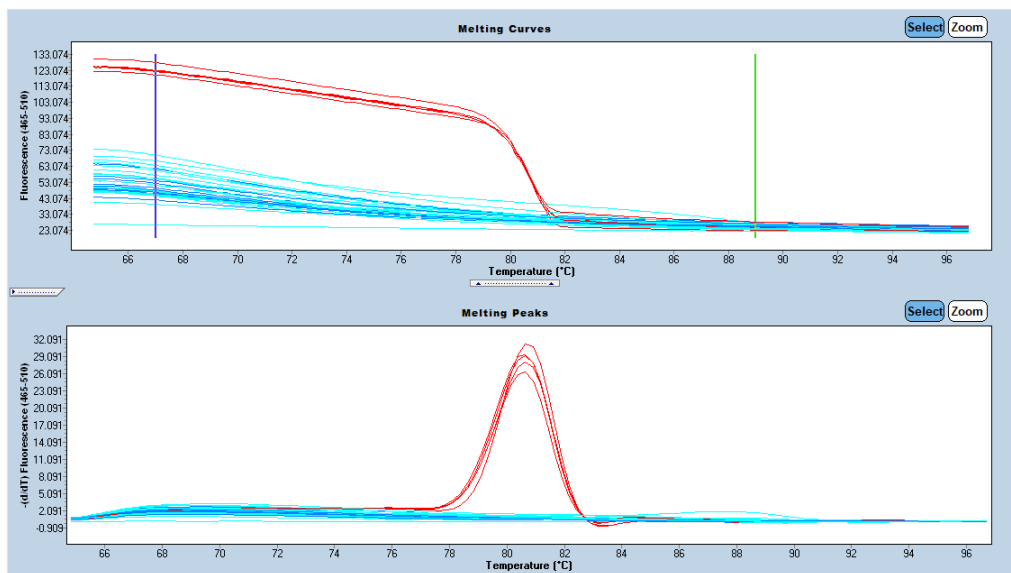


(e)

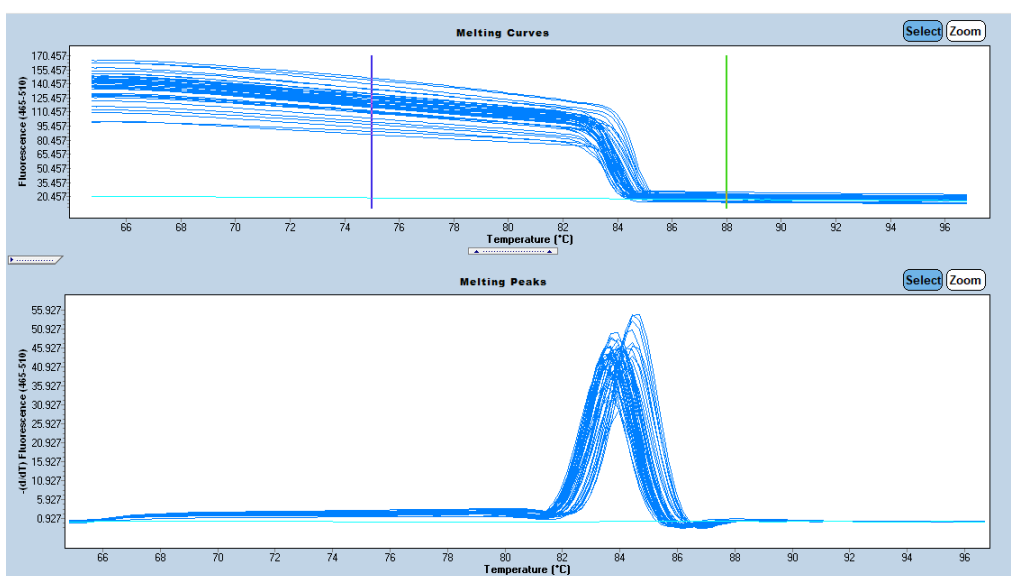


(f)

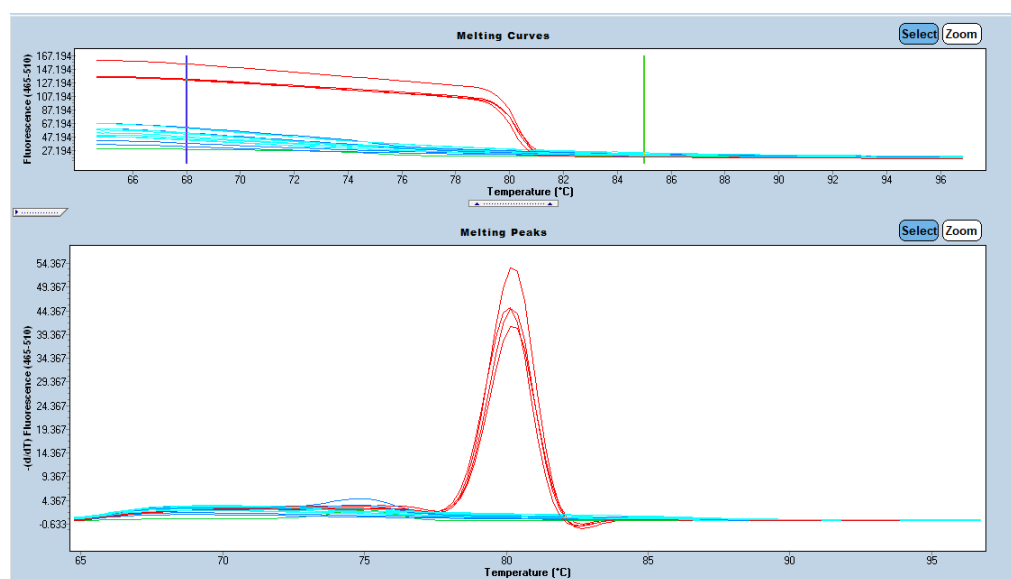
Figure S1. The examples of pictures showing results of real-time PCR (amplification curves) for detection of *speA* gene (a), *speB* gene (b), *speC* gene (c), *speH* gene (d), *speJ* gene (e) and *speK* gene (f); (red curves – positive results and positive control; green curves – negative results and negative control) .



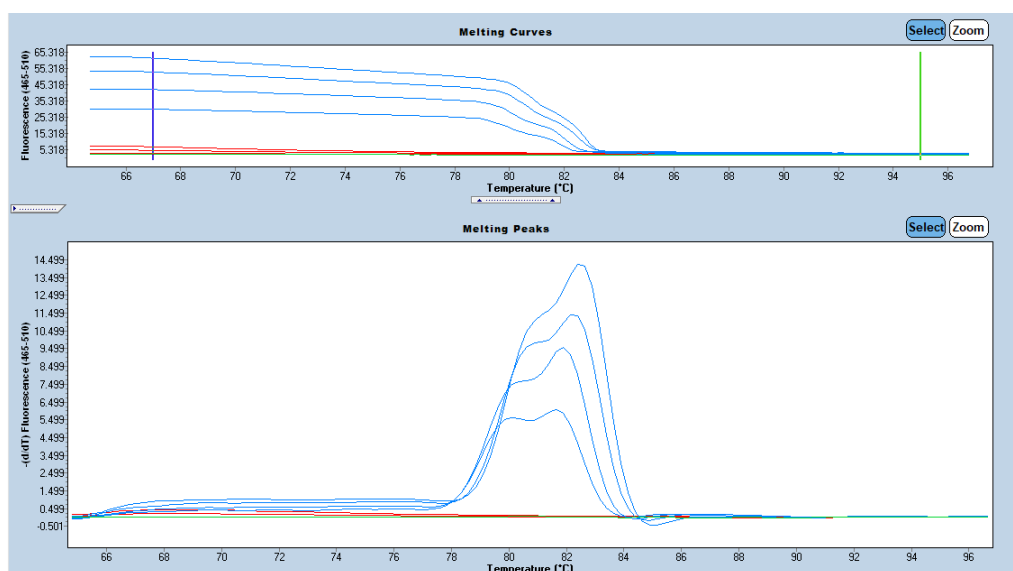
(a)



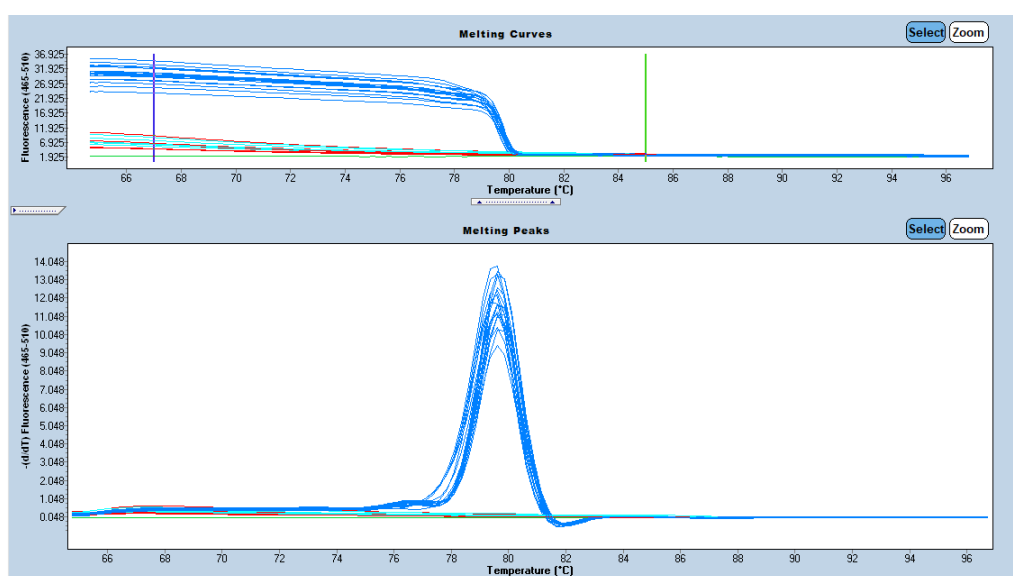
(b)



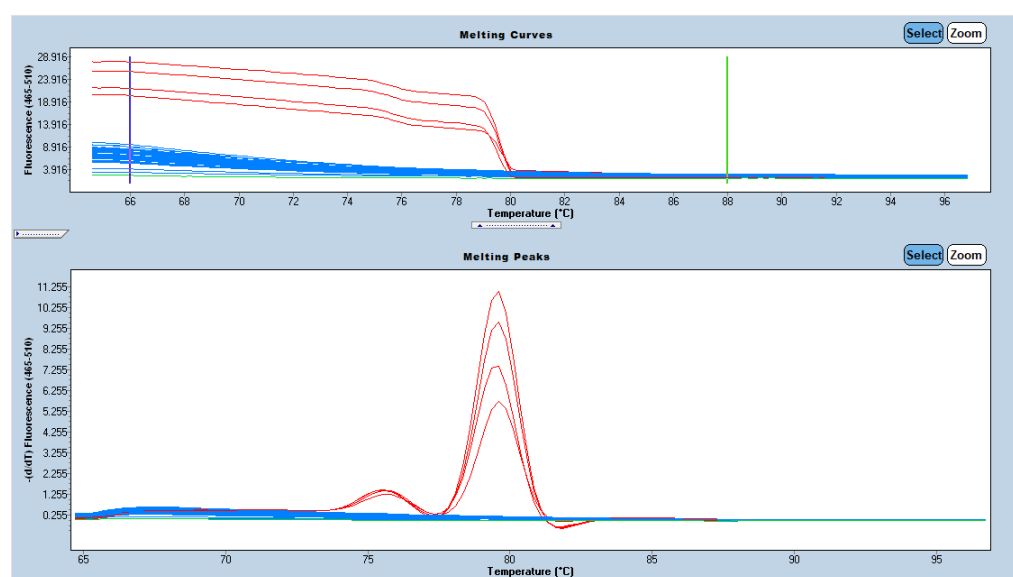
(c)



(d)



(e)



(f)

Figure S2. The examples of melting curves and melting peaks pictures showing specificity of the real-time PCR product for the confirmation of the following genes detection: of *speA* (a), *speB* (b), *speC* (c), *speH* (d), *speJ* (e) and *speK* (f); (red lines - a, c, f, blue lines - b, d, e).

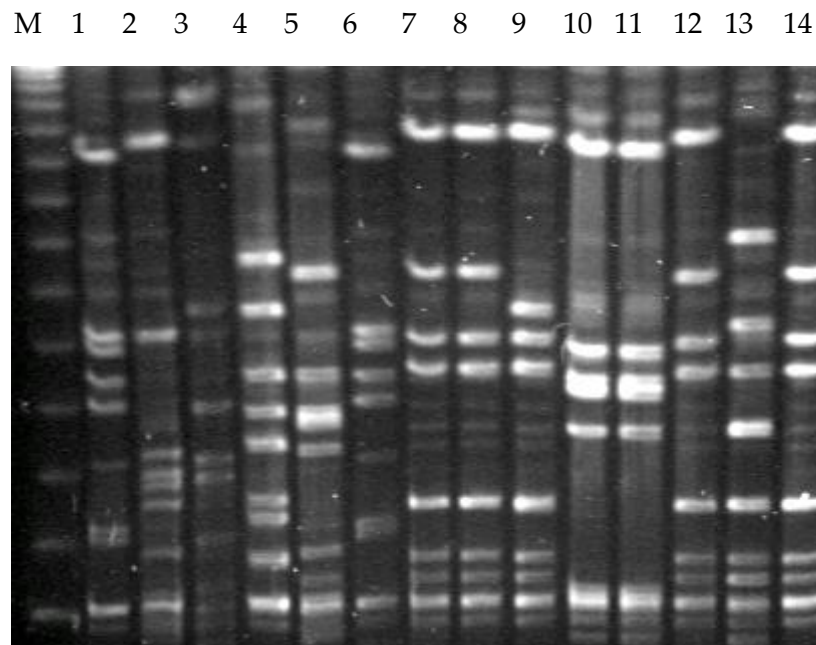


Figure S3. An example of the gel picture showing electrophoretic resolution of bacterial DNA and the corresponding PFGE patterns for the selected group of strains; 1-14 numbers of the examined strains, M – DNA size marker .

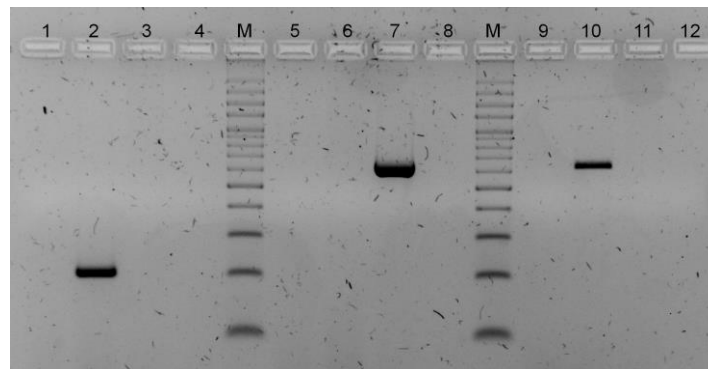


Figure S4. An example of the gel picture showing electrophoretic resolution of bacterial DNA amplification with conventional PCR, the study performed additionally to confirm the sizes of the amplification product for a particular gene and specificity of the applied real-time PCR methodology; 1-4 *speA* gene – 200 bp, 5-8 *speH* gene – 630 bp, 9-12 *speJ* gene – 639 bp, M – DNA size marker (100-3.000 bp) .

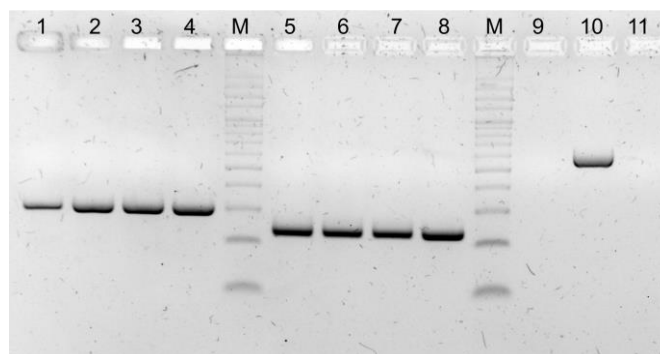


Figure S5. An example of the gel picture showing electrophoretic resolution of bacterial DNA amplification with conventional PCR, the study performed additionally to confirm the sizes of the amplification product for a particular gene and specificity of the applied real-time PCR methodology; 1-4 *speB* gene – 300 bp, 5-8 *speC* gene – 246 bp, 9-11 *speK* gene – 564 bp, M – DNA size marker (100-3.000 bp).

Table S1. The detailed origin (units) of the examined *S. pyogenes* strains (initial group of 168 isolates).

Name of the unit and the number of isolates per particular unit		Number of strains (<i>n</i> = 168)	%
Surgery Departments	Department of Liver and General Surgery – 33	54	32.0
	Department of Vascular Surgery and Angiology – 10		
	Department of General and Oncological Paediatric Surgery – 4		
	Department of Neurosurgery, Neurotraumatology and Paediatric Neurosurgery – 3		
	Department of Orthopaedics and Traumatology – 3		
Outpatient and external		47	28.0
Clinics	Trauma and Orthopedic – 7	18	10.7
	Paediatric Surgery – 4		
	Surgery – 3		
	Paediatric Hematology and Oncology – 1		
	Paediatric Gastroenterology – 1		
	Nutrition – 1		
	Dermatology and Venerology – 1		
Dermatology Department		10	6.0
Otolaryngology	Clinic – 5	9	5.4
	Department – 4		
Department of Cardiology		8	4.8
Department of Nephrology, Hypertension and Internal Medicine		6	3.6
The rest	Department of Anaesthesiology and Intensive Care – 3	16	9.5
	Department of Endocrinology and Diabetology – 3		
	Department of Emergency Medicine – 2		
	Department of Forensic Medicine – 2		
	Department of Paediatrics, Haematology and Oncology – 1		
	Department of Geriatrics – 1		
	Department of Neurology – 2		
	Department of Paediatrics, Allergology and Gastroenterology – 1		
Department of Ophthalmology – 1			

Table S2. The detailed origin (clinical specimen) of the examined *S. pyogenes* strains (initial group of 168 isolates) .

Specimen	<i>n</i> = 168	%
Wound swab	65	38.7
Throat swab	33	19.6
Pus samples	20	11.9
Sore swab	13	7.7
Blood samples	13	7.7
Nose swab	7	4.2
Skin swab	3	1.8
The rest: ear swab - 2, tissue - 2, skin lesion swab – 2, stool sample – 1, rectal swab - 1, broncho-alveolar lavage – 1, vaginal swab – 1, eye swab - 1, urethral swab - 1, pleural fluid – 1, catheter outlet swab – 1	14	8.3