



Hospital-Wide Healthcare-associated Bloodstream Infections Surveillance results: 2014-2015

From April 1st, 2014, to March 31st, 2015, 88 healthcare facilities took part in the hospital-wide surveillance of bloodstream infections (BSIs), for a combined total of 4,733,772 patient-days (Table 1). Participating facilities reported 3,035 BSIs in 2,832 patients. The total incidence rate was 5.3 cases per 10,000 patient-days. The incidence rate in 2014-2015 was significantly lower compared to the average rate for 2010-2014 in facilities that took part in both surveillance periods. Two teaching and 10 non-teaching facilities joined the program in 2014-2015 and one stopped participating; in addition, four facilities are not counted anymore in the 2013-2014 surveillance results, having provided data for less than 11 periods for this surveillance year. Data was extracted on May 20th, 2015.

Updated : March 29, 2016

Table 1 - Participation of Healthcare Facilities in the Hospital-Wide Surveillance of BSIs, Québec, 2010-2011 to 2014-2015

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Participating facilities (N)	56	59	64	73	88
Admissions (N)	389,274	409,435	482,354	520,772	633,155
Patient-days (N)	3,152,924	3,226,042	3,791,482	3,998,173	4,733,772
BSIs (cat. 1a, 1b and 1c, N)	2,338	2,228	2,665	2,459	3,035
Infected patients (N)	2,170	2,129	2,550	2,297	2,832

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Incidence Rates

In 2014–2015, the total incidence rate was 5.3 BSIs per 10,000 patient days. Incidence rates were much higher in intensive care units (ICUs) than in other units (Table 2). Catheter-related bloodstream infections (CRBSIs) were the most common BSIs in ICUs (Table 2 and Figure 2). In other units, the incidence rates varied depending on the type of healthcare facility: non-CRBSI were the most common primary BSIs in teaching facilities, while BSIs secondary to urinary tract infections were the most common in non-teaching facilities (Table 2 and Figure 3). In teaching facilities, in non-intensive care units, the CRBSI incidence rate (1.0 case / 10,000 patient-days) increases to 1.5 case / 10,000 patient-days when CRBSI associated with a mucosal barrier injury (MBI) are also considered.

Figure 1 - BSI Incidence Rate for Each Type of Infection, by Type of Healthcare Facility, Québec, 2014–2015 (Incidence Rate per 10,000 Patient-Days [95% CI])

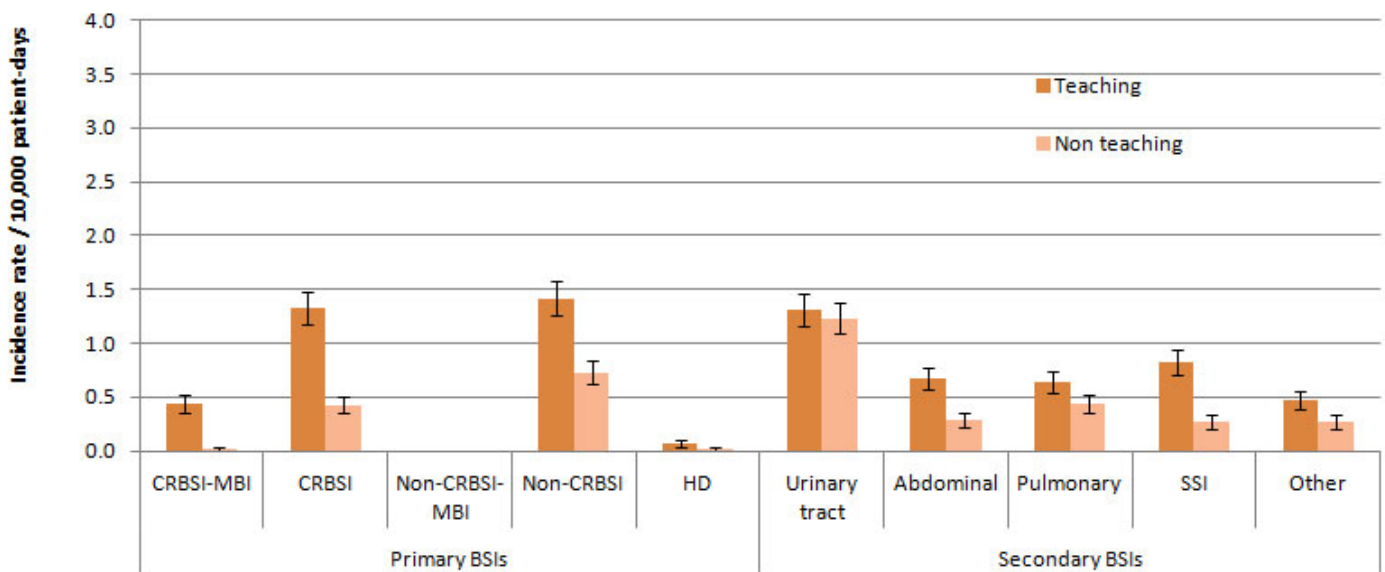


Figure 2 - BSI Incidence Rate in ICUs, For Each Type of Infection, by Type of Healthcare Facility and Type of ICU, Québec, 2014–2015 (Incidence Rate per 10,000 Patient-Days [95% CI])

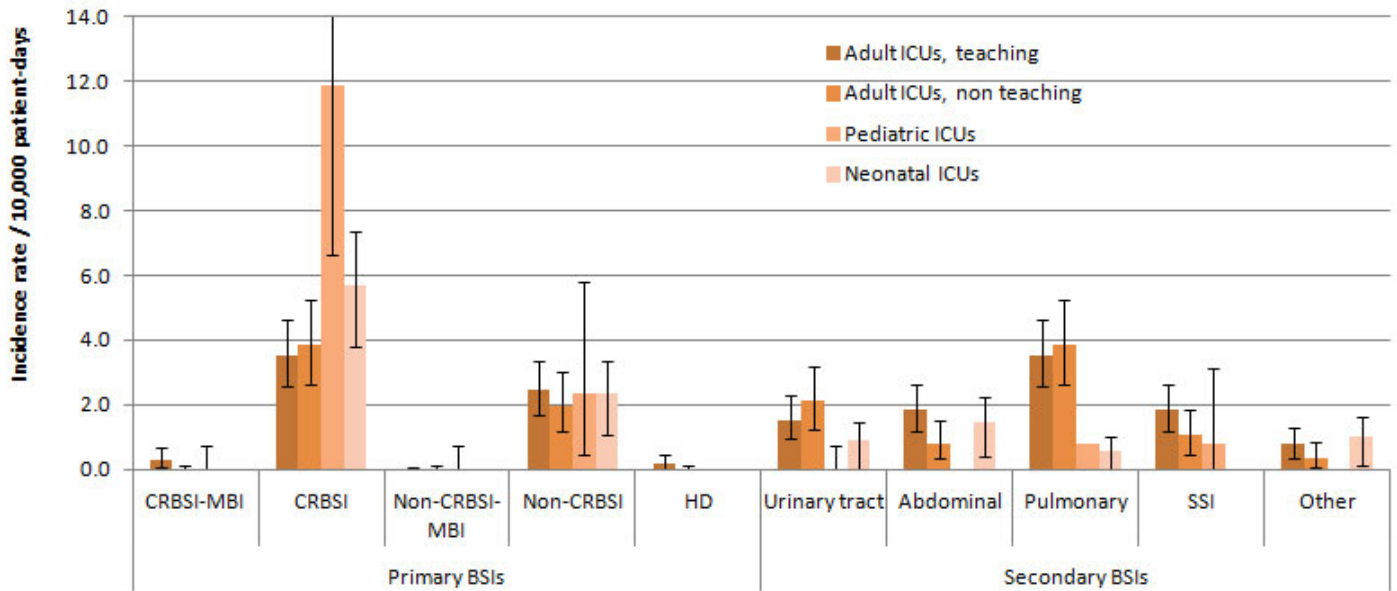


Figure 3 - BSI Incidence Rate in Non-ICU Units, for Each Type of Infection, by Type of Healthcare Facility, Québec, 2014-2015 (Incidence Rate per 10,000 Patient-Days [95% CI])

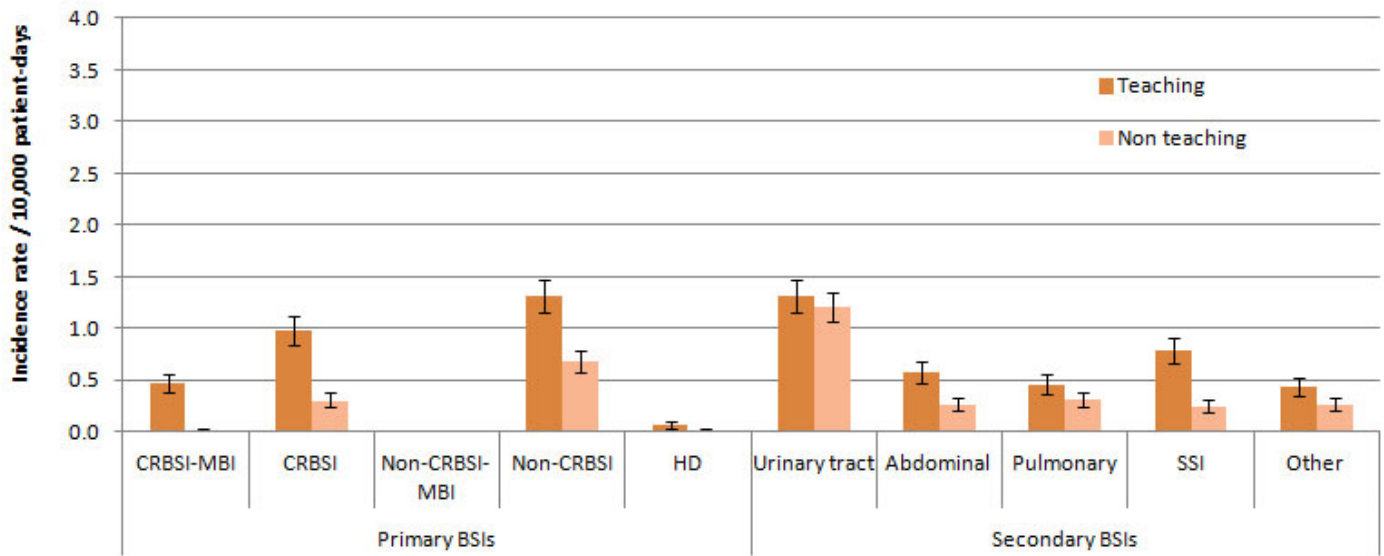


Table 2 - BSI Incidence Rate for Each Type of Infection, by Type of Healthcare Facility, Type of Unit and Type of ICU, Québec, 2014-2015 (Incidence Rate per 10,000 Patient-Days [95% CI])

	Primary BSIs				Secondary BSIs					Total
	CRBSI-MBI	CRBSI	Non-CRBSI - MBI	Non-CRBSI	Urinary tract	Abdominal	Pulmonary	SSI	Other**	
Total hospitalized	0.2 [0.2 ; 0.3]	0.9 [0.8 ; 0.9]	0*	1.1 [1 ; 1.2]	1.3 [1.2 ; 1.4]	0.5 [0.4 ; 0.5]	0.5 [0.5 ; 0.6]	0.5 [0.5 ; 0.6]	0.4 [0.3 ; 0.4]	5.3 [5.1 ; 5.5]

Teaching	0.4 [0.4 ; 0.5]	1.3 [1.2 ; 1.5]	0*	1.4 [1.3 ; 1.6]	1.3 [1.2 ; 1.5]	0.7 [0.6 ; 0.8]	0.6 [0.5 ; 0.7]	0.8 [0.7 ; 0.9]	0.5 [0.4 ; 0.6]	7.2 [6.8 ; 7.5]
Non;teaching	0*	0.4 [0.3 ; 0.5]	0*	0.7 [0.6 ; 0.8]	1.2 [1.1 ; 1.4]	0.3 [0.2 ; 0.3]	0.4 [0.4 ; 0.5]	0.3 [0.2 ; 0.3]	0.3 [0.2 ; 0.3]	3.7 [3.4 ; 3.9]
ICUs	0.1 [0 ; 0.3]	4.5 [3.7 ; 5.3]	0*	2.3 [1.8 ; 2.9]	1.5 [1.1 ; 1.9]	1.4 [1 ; 1.8]	2.8 [2.2 ; 3.5]	1.1 [0.8 ; 1.6]	0.7 [0.4 ; 1]	14.4 [13.1 ; 15.8]
Adult teaching	0.3 [0.1 ; 0.7]	3.5 [2.6 ; 4.6]	0*	2.4 [1.7 ; 3.4]	1.5 [0.9 ; 2.3]	1.8 [1.2 ; 2.6]	3.5 [2.6 ; 4.6]	1.8 [1.2 ; 2.6]	0.8 [0.4 ; 1.3]	15.9 [13.8 ; 18.1]
Adult non;teaching	0*	3.8 [2.6 ; 5.3]	0*	2 [1.2 ; 3]	2.1 [1.2 ; 3.2]	0.8 [0.3 ; 1.5]	3.8 [2.6 ; 5.3]	1 [0.5 ; 1.8]	0.3 [0.1 ; 0.9]	14 [11.6 ; 16.6]
Pediatric	0*	11.9 [6.6 ; 18.6]	0*	2.4 [0.4 ; 5.8]	0*	0*	0.8 [0 ; 3.1]	0.8 [0 ; 3.1]	0*	15.8 [9.6 ; 23.5]
Neonatal	0*	5.7 [4 ; 7.6]	0*	2.3 [1.3 ; 3.6]	0.9 [0.3 ; 1.7]	1.5 [0.7 ; 2.5]	0.6 [0.2 ; 1.3]	0*	1 [0.4 ; 1.9]	12 [9.5 ; 14.7]
Non;ICU units	0.2 [0.2 ; 0.3]	0.6 [0.5 ; 0.7]	0*	1 [0.9 ; 1.1]	1.3 [1.2 ; 1.4]	0.4 [0.3 ; 0.5]	0.4 [0.3 ; 0.4]	0.5 [0.4 ; 0.6]	0.3 [0.3 ; 0.4]	4.7 [4.5 ; 4.9]
Teaching	0.5 [0.4 ; 0.6]	1 [0.8 ; 1.1]	0*	1.3 [1.2 ; 1.5]	1.3 [1.2 ; 1.5]	0.6 [0.5 ; 0.7]	0.5 [0.4 ; 0.6]	0.8 [0.7 ; 0.9]	0.4 [0.3 ; 0.5]	6.4 [6 ; 6.7]
Non;teaching	0*	0.3 [0.2 ; 0.4]	0*	0.7 [0.6 ; 0.8]	1.2 [1.1 ; 1.3]	0.3 [0.2 ; 0.3]	0.3 [0.2 ; 0.4]	0.2 [0.2 ; 0.3]	0.3 [0.2 ; 0.3]	3.3 [3.1 ; 3.5]

* When the incidence rate is 0, the confidence interval [CI] is not calculated.

** The "Other" column also includes HD-related BSIs and secondary BSIs arising from a skin, soft tissue, bone or joint infection.

Incidence Rate Time Trends

The BSI incidence rate in 2014–2015 decreased significantly compared to the 2010–2014 pooled rate ($p < 0.01$, Table 3). This results from the significant decrease observed in teaching facilities ($p < 0.01$), while incidence rates remained stable in non-teaching facilities. This downward trend was observed for every BSI type except for non-CRBSIs (Figure 4). Observed variations were significant for CRBSI ($p < 0.01$), non-CRBSI ($p < 0.01$), hemodialysis-related BSIs ($p < 0.01$) and BSIs secondary to a surgical site infection (SSI) ($p < 0.01$).

Figure 4 - BSI Incidence Rate, by Type of Infection, in Facilities that Previously participated in

Surveillance (N = 75), Québec, 2010-2014 and 2014-2015 (Incidence Rate per 10,000 Patient-Days [95% CI])

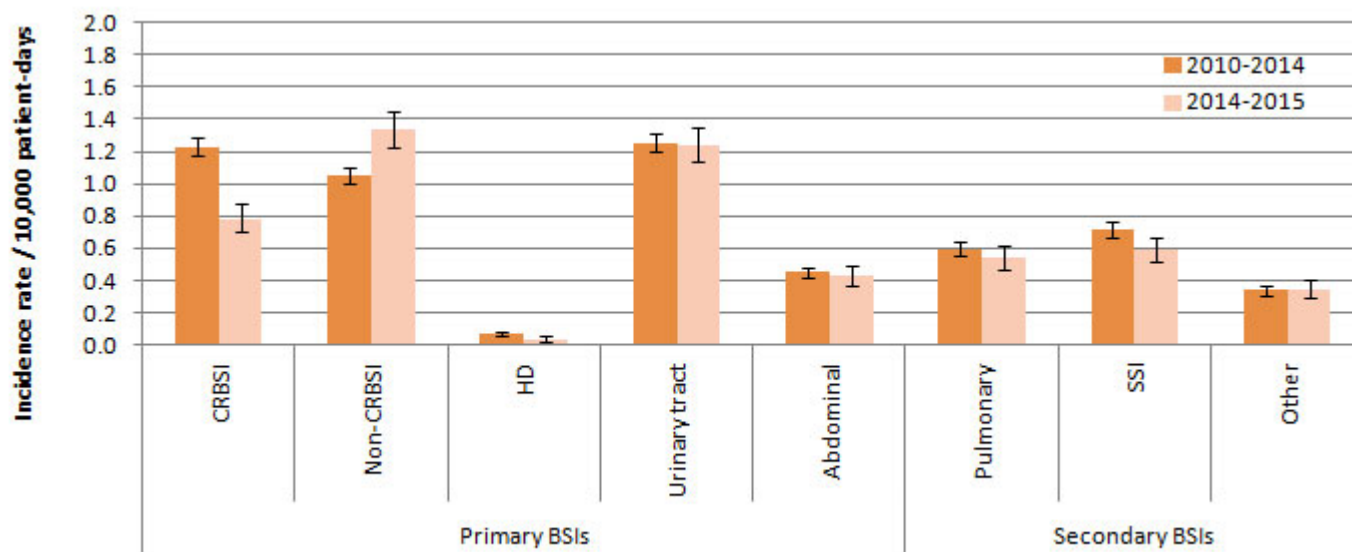


Table 3 - BSI Incidence Rate, by Type of Healthcare Facility, in Facilities that Previously participated in Surveillance (N = 75), Québec, 2010-2014 and 2014-2015 (Incidence Rate per 10,000 Patient-Days [95% CI])

	Number of Facilities	Incidence Rate	
		2010-2014	2014-2015
Teaching facilities	22	7.8 [7.6 ; 8.0]	7.1 [6.7 ; 7.5]*
Non-teaching facilities	53	3.6 [3.4 ; 3.7]	3.5 [3.3 ; 3.8]
Total	75	5.7 [5.6 ; 5.8]	5.3 [5.1 ; 5.5]*

* Statistically significant difference (p < 0.01).

Description of Cases

Patients who developed a BSI were aged between 0 and 102 years, with a median age of 69 years. Although the incidence rates were higher in ICUs, most BSIs occurred in non-ICU units (69%, Table 4 and Figure 5). CRBSIs were the most commonly encountered BSIs in ICUs, whereas BSIs secondary to urinary tract infections were the most common in non-ICU units. Non-CRBSIs were the most frequent type of BSI in teaching facilities, whereas BSIs originating from a urinary tract infection ranked first among non-teaching facilities (Table 4 and Figure 6). At least one procedure was reported for 38% (257 / 668) of non-CRBSIs.

Figure 5 - Breakdown of Cases Based on Type of Unit and Type of ICU, Québec, 2014-2015 (%)

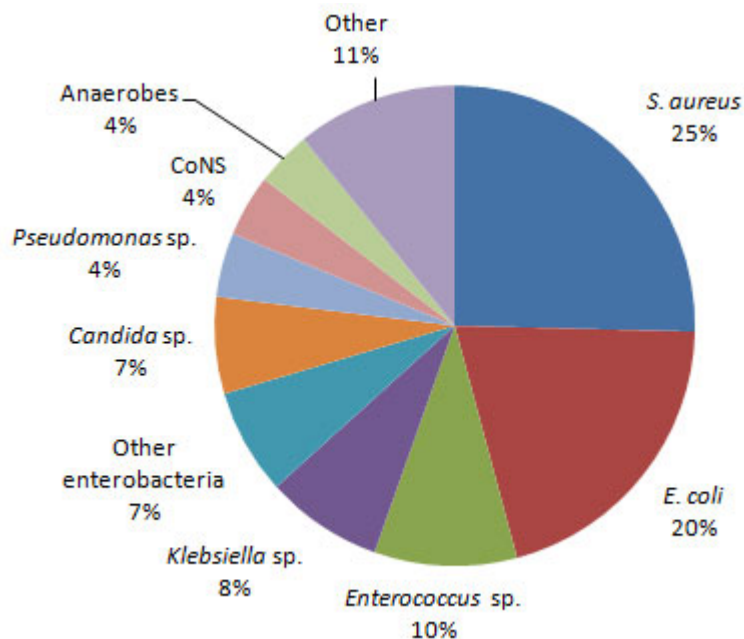


Figure 6 - Breakdown of Cases Based on Type of BSI, for Teaching and Non-Teaching Healthcare Facilities, Québec, 2014-2015 (%)

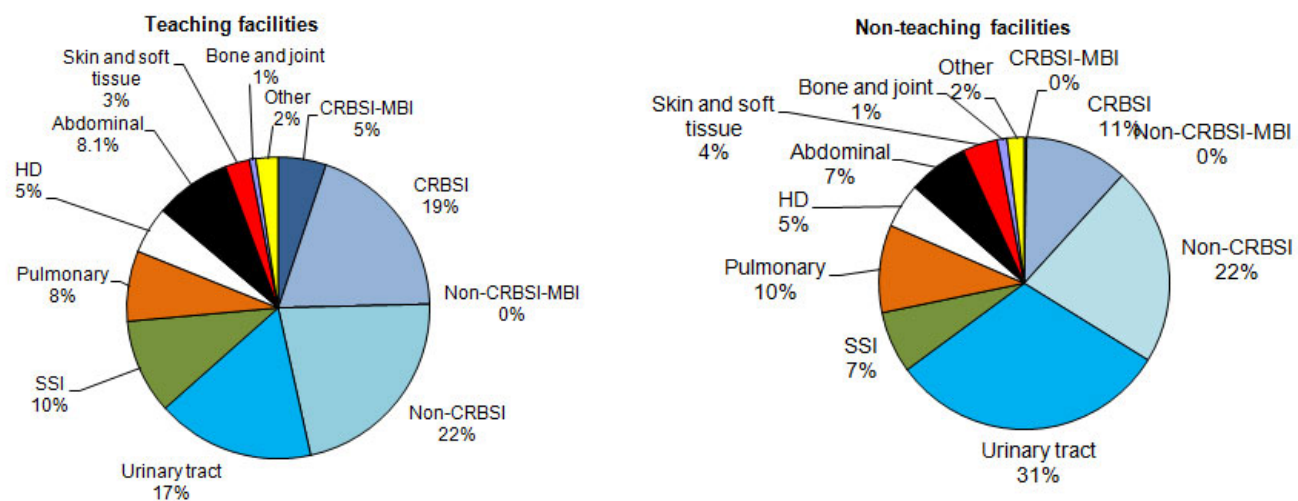


Table 4 - Number of Cases for Each Type of BSI, by Type of Healthcare Facility, Type of Unit and Type of ICU, Québec, 2014-2015 (N)

	Primary BSIs			Secondary BSIs						Total	
	CRBSI-MBI	CRBSI	Non-CRBSI - MBI	Non-CRBSI	HD	Urinary tract	Abdominal	Pulmonary	SSI		Other*
Total	102	502	0	668	152	670	231	253	271	186	3,035
Teaching	99	375	0	423	97	326	157	145	195	110	1,927
Non-teaching	3	127	0	245	55	344	74	108	76	76	1,108
Total hospitalized	102	406	0	500	19	600	221	251	254	172	2,525
Teaching	99	301	0	321	16	296	152	145	187	106	1,623
Non-teaching	3	105	0	179	3	304	69	106	67	66	902

ICU	4	133	0	68	2	44	41	84	34	20	430
Adult, teaching	4	46	0	32	2	20	24	46	24	10	208
Adult, non-teaching	0	33	0	17	0	18	7	33	9	3	120
Pediatric	0	15	0	3	0	0	0	1	1	0	20
Neonatal	0	39	0	16	0	6	10	4	0	7	82
Non-ICU hospitalization	98	273	0	432	17	556	180	167	220	152	2,095
Teaching	95	201	0	270	14	270	118	94	162	89	1,313
Non-teaching	3	72	0	162	3	286	62	73	58	63	782
Ambulatory	0	96	0	168	133	70	10	2	17	14	510
Teaching	0	74	0	102	81	30	5	0	8	4	304
Non-teaching	0	22	0	66	52	40	5	2	9	10	206

* The “Other” column also includes BSIs secondary to skin, soft tissue, bone or joint infection.

Overall, 19% of BSI cases resulted in death within 30 days of bacteremia onset (Table 5). Case fatality was highest in patients with a BSI secondary to a pulmonary infection (Table 5 and Figure 7).

Figure 7 - 30-Day Case Fatality for Each Type of Infection, Québec, 2014-2015 (%)

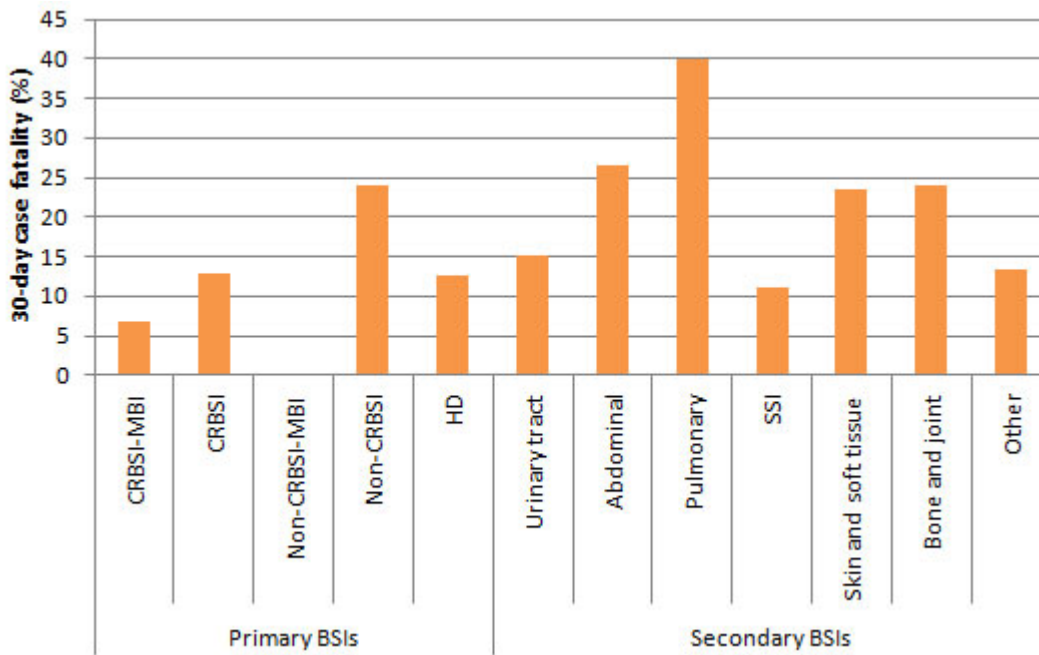


Table 5 - 10-Day and 30-Day Case Fatality for Each Type of Infection, 2014-2015 (N, %)

	BSIs (N)	10-day case fatality		30-day case fatality	
		N	%	N	%
Primary BSIs					
CRBSI-MBI	102	1	1	7	7
CRBSI	502	35	7	64	13

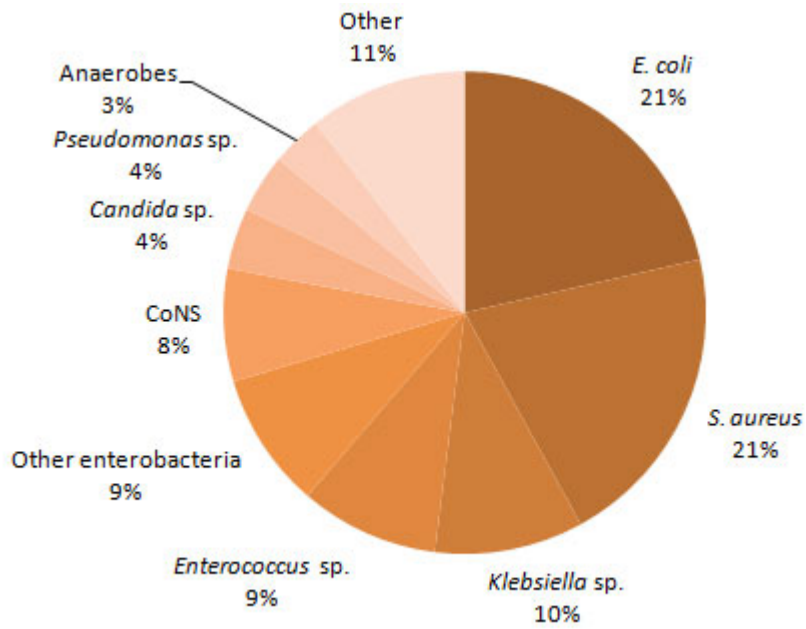
Non-CRBSI-MBI	0	0	-	0	-
Non-CRBSI	668	137	21	161	24
HD	152	8	5	19	13
Secondary BSIs					
Urinary tract	670	60	9	102	15
Abdominal	231	45	19	61	26
Pulmonary	253	77	30	101	40
SSI	271	18	7	30	11
Skin and soft tissue	94	17	18	22	23
Bone and joint	25	3	12	6	24
Other	67	5	7	9	13
Total	3,035	406	13	582	19

Microbiology

The two most frequently isolated microorganisms in reported cases and in cases resulting in death within 30 days were *Staphylococcus aureus* and *Escherichia coli* (Figure 8 and Table 6). Coagulase-negative staphylococci (CoNS) were the most frequently isolated microorganisms in patients with a CRBSI (Figure 9 and Table 6). *S. aureus* was the most frequently isolated microorganism in hemodialysis-related BSIs and in BSIs secondary to a pulmonary infection or a SSI. In patients with a non-CRBSI, CRBSI-MBI or a BSI secondary to a urinary tract or abdominal infection, enterobacteria were the most common microorganisms. A polymicrobial infection occurred in 7% of cases.

Figure 8 - Breakdown of Categories of Isolated Microorganisms in All Cases (N = 3,287) and Cases of Fatality Within 30 Days (N = 646), Québec, 2014-2015 (%)

Isolated Microorganisms—All Cases



Isolated Microorganisms—Fatality Within 30 Days

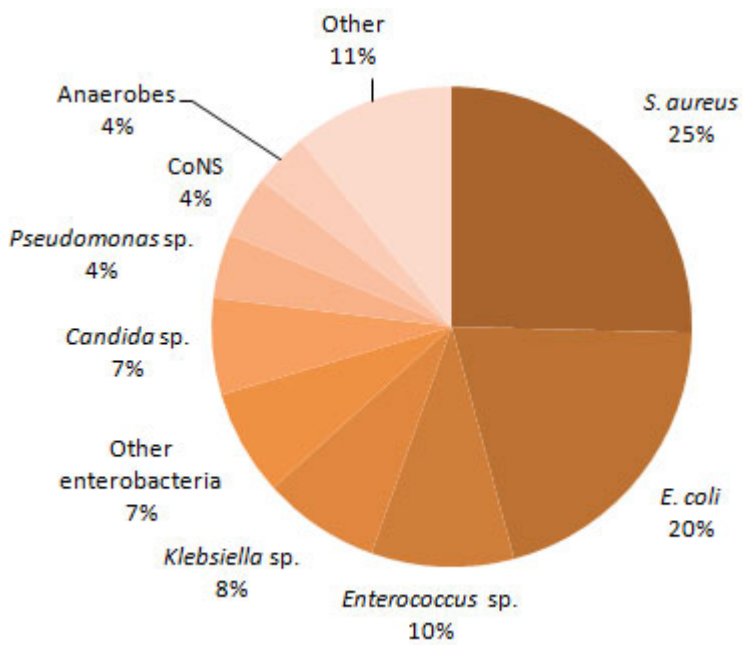


Figure 9 - Breakdown of Categories of Isolated Microorganisms, for Each Type of BSI, Québec, 2014-2015 (%)

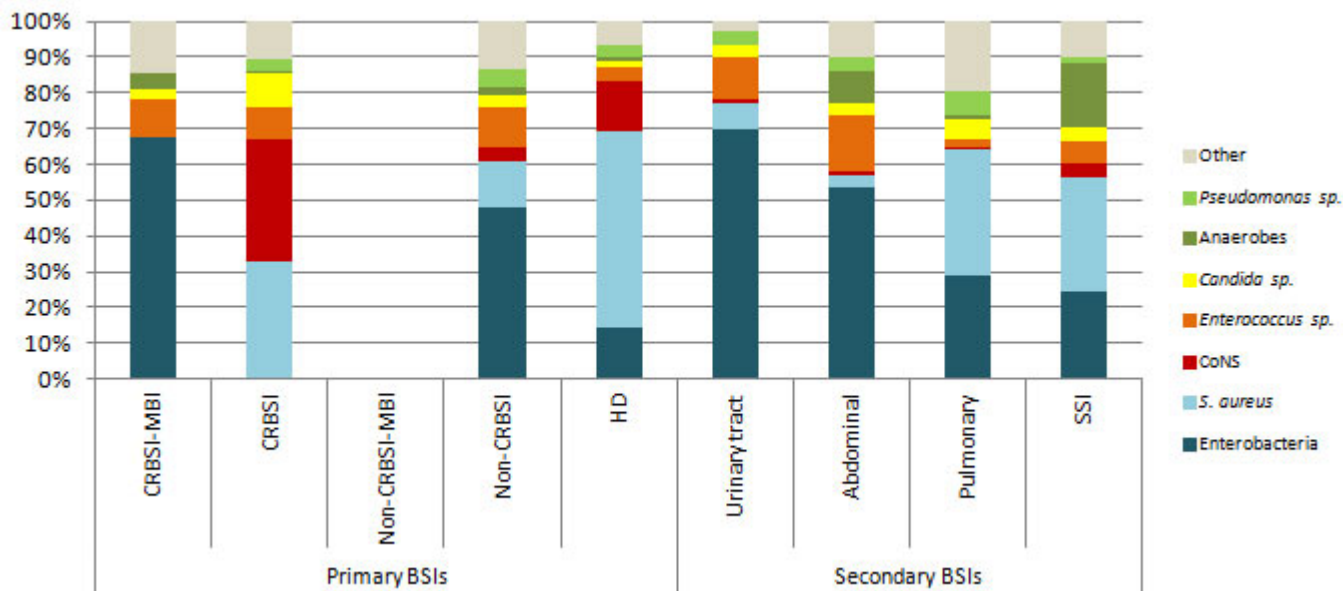


Table 6 - Breakdown of Microorganisms associated with BSIs, for each Type of BSI, for all BSIs and for those associated with a Fatality Within 30 Days, Québec, 2014-2015 (N, %)

Microorganism	Primary BSIs				Secondary BSIs					Overall*	30-Day Case Fatality	
	CRBSI-MBI	CRBSI	Non-CRBSI - MBI	Non-CRBSI	HD	Urinary tract	Abdominal	Pulmonary	SSI		N	%
Enterobacteria	74	0	0	354	23	489	145	78	72	1,332	229	17.2
<i>E. coli</i>	36	12	0	189	2	309	77	29	29	705	132	18.7
<i>Klebsiella sp.</i>	24	20	0	89	7	87	44	27	22	328	51	15.5
<i>Other enterobacteriaceae</i>	14	29	0	76	14	93	24	22	21	299	46	15.4
<i>S. aureus</i>	0	160	0	94	87	47	9	97	94	676	164	24.3
CNS	0	165	0	28	22	11	3	1	12	248	27	10.9
<i>Enterococcus sp.</i>	12	46	0	81	7	80	42	6	17	306	62	20.3
<i>Candida sp.</i>	3	44	0	26	2	23	10	15	12	135	42	31.1
Anaerobic	5	3	0	14	2	2	24	4	53	111	24	21.6
<i>Pseudomonas sp.</i>	0	16	0	40	5	27	10	18	4	130	28	21.5
Other	16	53	0	97	11	19	28	53	30	349	70	20.1
Total	110	487	0	734	159	698	271	272	294	3,287	646	19.7

* This column includes the sum of the other columns as well as secondary BSIs arising from a skin, soft tissue, bone or joint infection, or another source.

Methicillin-resistant *S. aureus* (MRSA) accounted for 18% (118 / 672) of *S. aureus* BSIs in all geographic areas (Table 7 and Figure 10). BSIs associated with carbapenem-resistant enterobacteriaceae continued to be relatively rare in Québec.

Table 7 - Proportion of Strains Tested and Proportion of Resistance to Antibiotics for Selected Isolated Microorganisms, Québec, 2014-2015 (N, %)

Microorganism	Antibiotic	Isolated (N)	Tested		Resistant	
			N	%	N	%

<i>Staphylococcus aureus</i>	Oxacillin	676	672	99.4	118	17.6
<i>Enterococcus faecium</i>	Vancomycin	97	97	100.0	16	16.5
<i>Enterococcus faecalis</i>	Vancomycin	167	167	100.0	1	0.6
<i>Klebsiella (pneumoniae/oxytoca)</i>	CSE 4	328	259	79.0	18	6.9
	Imipenem or meropenem	328	188	57.3	2	1.1
	Multiresistant 1	328	290	88.4	14	4.8
	CSE 4	705	539	76.5	62	11.5
<i>Escherichia coli</i>	Fluoroquinolones 3	705	643	91.2	167	26.0
	Imipenem or meropenem	705	379	53.8	0	-
	Multiresistant 1	705	600	85.1	31	5.2
	CSE 4	156	137	87.8	29	21.2
<i>Enterobacter sp.</i>	Imipenem or meropenem	156	92	59.0	0	0.0
	Multiresistant 1	156	136	87.2	3	2.2
	Amikacin, gentamicin or tobramycin	130	97	74.6	2	2.1
	CSE 2	130	118	90.8	7	5.9
<i>Pseudomonas sp.</i>	Fluoroquinolones 2	130	120	92.3	9	7.5
	Imipenem or meropenem	130	106	81.5	10	9.4
	Piperacillin/tazobactam	130	82	63.1	6	7.3
	Multiresistant 2	130	123	94.6	7	5.7
<i>Acinetobacter sp.</i>	Imipenem or meropenem	11	10	90.9	0	0.0
	Multiresistant 3	11	2	18.2	0	0.0

CSE 4 : cefepime, cefotaxime, ceftazidime or ceftriaxone; **CSE 2**: cefepime or ceftazidime.

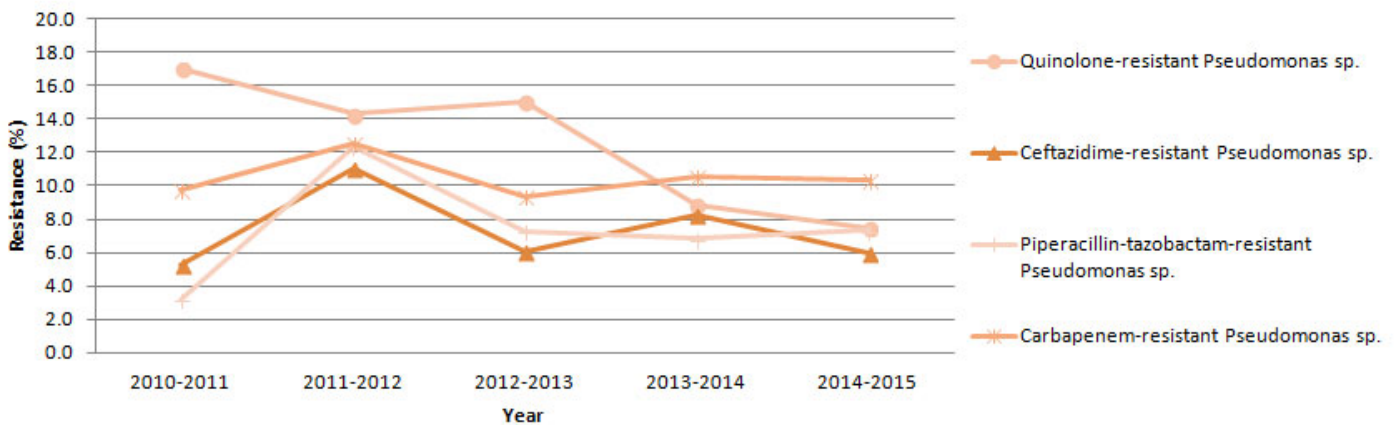
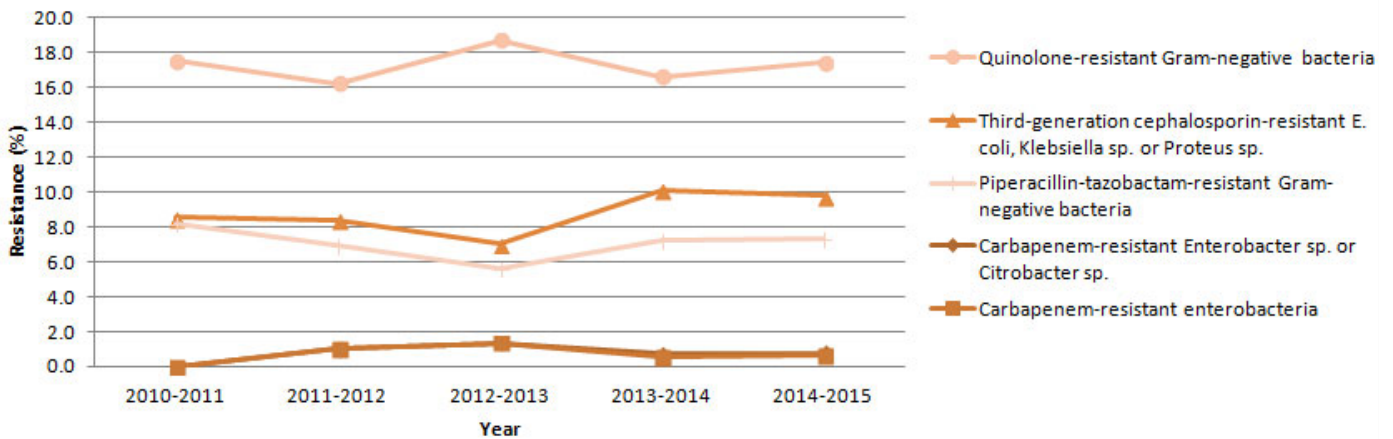
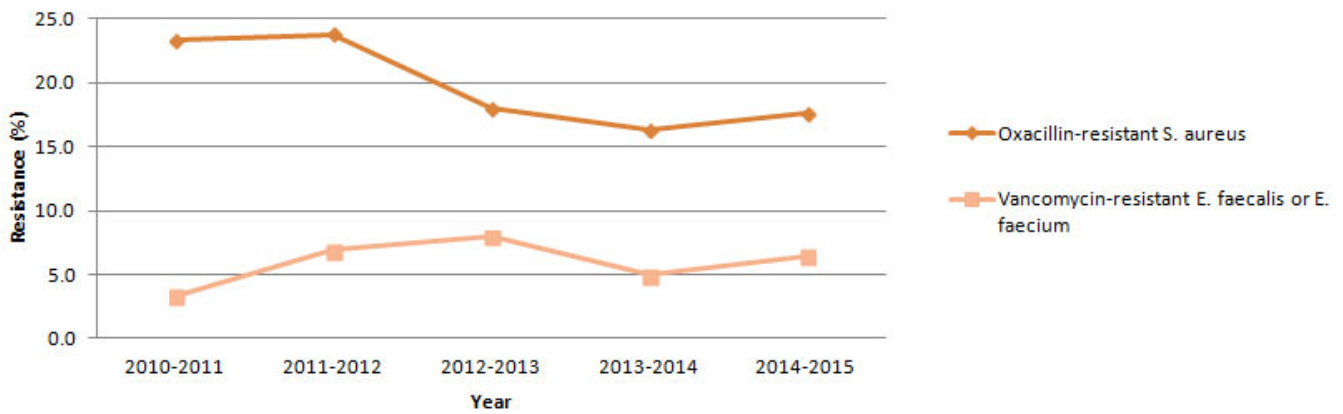
Fluoroquinolones 3 : ciprofloxacin, levofloxacin or moxifloxacin; **Fluoroquinolones 2**: ciprofloxacin or levofloxacin.

Multiresistant 1 : intermediate or resistant to an agent in three of the following five categories: cephalosporins 4, fluoroquinolones 3, aminoglycosides, carbapenems, piperacillin or piperacillin/tazobactam.

Multiresistant 2 : intermediate or resistant to an agent in three of the following five categories: cephalosporins 2, fluoroquinolones 2, aminoglycosides, carbapenems, piperacillin or piperacillin/tazobactam.

Multiresistant 3 : intermediate or resistant to an agent in three of the following six categories: cephalosporins 2, fluoroquinolones 2, aminoglycosides, carbapenems, piperacillin or piperacillin/tazobactam, ampicillin/sulbactam.

Figure 10 - Antibiotic Resistance in Gram-Positive Bacteria, Gram-Negative Bacteria and *Pseudomonas sp.*, Québec, 2010-2014 to 2014-2015 (%)



Results Per Healthcare Facility

One teaching and 6 non-teaching facilities had an incidence rate above the 90th percentiles of 2010-2014 incidence rates (Figures 11 and 12). Tables 8 and 9 present 2014-2015 rates of CRBSI and of BSIs secondary to urinary tract and pulmonary infections, per healthcare facility.

Figure 11 - BSI Incidence Rate per Facility (2014-2015) and Percentile Ranking (2010-2011 to 2013-2014) for Teaching Healthcare Facilities, Québec, 2014-2015

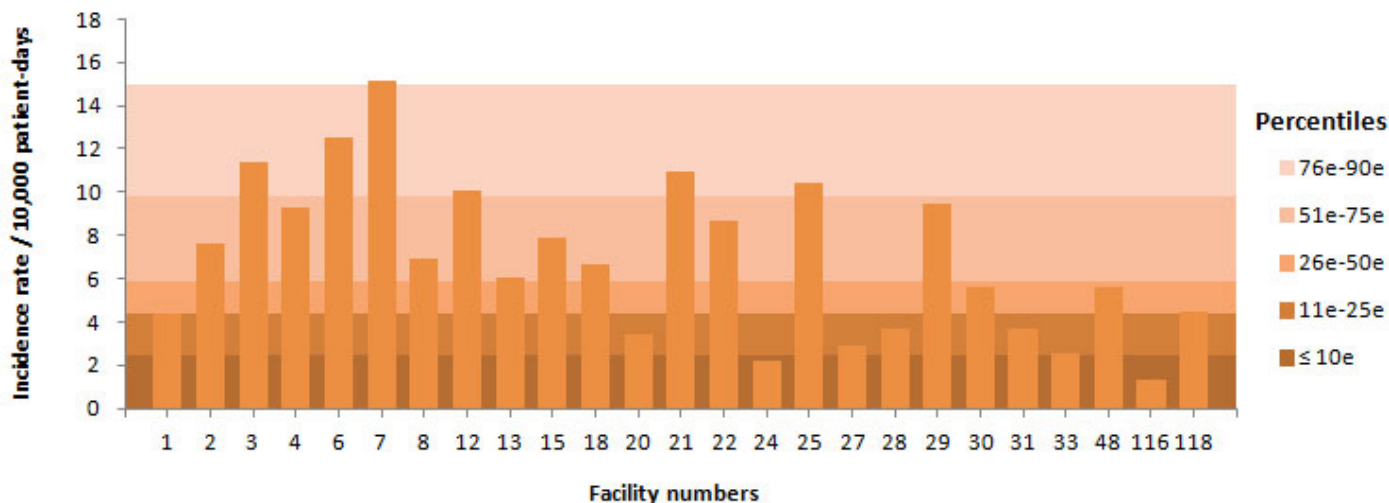
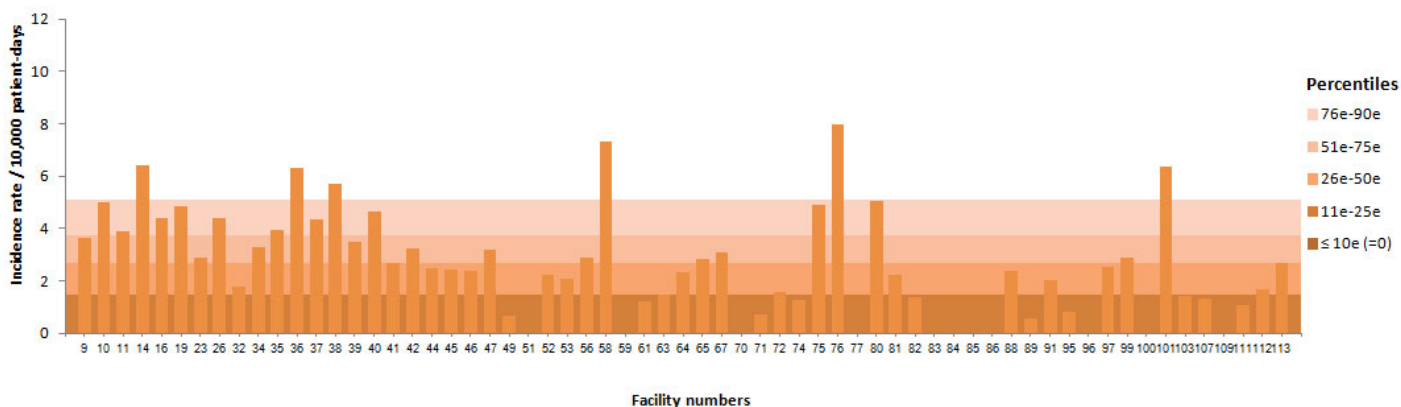


Figure 12 - BSI Incidence Rate per Facility (2014-2015) and Percentile Ranking (2010-2011 to 2013-2014) for Non-Teaching Healthcare Facilities, Québec, 2014-2015



[1]

Table 8 - Incidence Rates of CRBSI and of BSIs Secondary to Urinary Tract and Pulmonary Infections per Facility and Percentile Ranking, for Teaching Healthcare Facilities, Québec, 2014-2015 (Incidence Rate per 10,000 Patient-Days [95% CI])

Facility		CRBSI		Urinary		Pulmonary	
		Cases (n)	Incidence rates	Cases (n)	Incidence rates	Cases (n)	Incidence rates
1	HÔPITAL CHARLES LEMOYNE	9	0.7	6	0.5	8	0.6
			[0.3 ; 1.2]		[0.2 ; 0.9]		[0.3 ; 1.1]
2	HÔPITAL DE L'ENFANT-JÉSUS	13	1.0	28	2.1	4	0.3
			[0.5 ; 1.6]		[1.4 ; 3.0]		[0.1 ; 0.7]
3	HÔPITAL ROYAL VICTORIA	26	2.4	21	1.9	11	1.0
			[1.5 ; 3.4]		[1.2 ; 2.8]		[0.5 ; 1.7]

4	HÔPITAL NOTRE-DAME DU CHUM	20	1.8	[1.1 ; 2.7]	22	2.0	[1.2 ; 2.9]	17	1.5	[0.9 ; 2.3]
6	L'HÔPITAL DE MONTREAL POUR ENFANTS	24	6.5	[4.2 ; 9.4]	0	0.0	-	0	0.0	-
7	PAVILLON L'HÔTEL-DIEU DE QUÉBEC	13	1.5	[0.8 ; 2.5]	23	2.7	[1.7 ; 4.0]	11	1.3	[0.7 ; 2.2]
8	PAVILLON MAISONNEUVE/PAVILLON MARCEL-LAMOUREUX	25	1.4	[0.9 ; 1.9]	20	1.1	[0.7 ; 1.6]	10	0.5	[0.3 ; 0.9]
12	CENTRE HOSPITALIER UNIVERSITAIRE SAINTE- JUSTINE	47	5.1	[3.8 ; 6.7]	6	0.7	[0.2 ; 1.3]	3	0.3	[0.1 ; 0.8]
13	INSTITUT DE CARDIOLOGIE DE MONTREAL	3	0.7	[0.1 ; 1.7]	4	0.9	[0.2 ; 2.1]	3	0.7	[0.1 ; 1.7]
15	HÔPITAL FLEURIMONT	7	0.6	[0.3 ; 1.2]	21	1.9	[1.2 ; 2.9]	11	1.0	[0.5 ; 1.7]
18	HÔTEL-DIEU DE LÉVIS	10	1.3	[0.6 ; 2.3]	15	2.0	[1.1 ; 3.1]	6	0.8	[0.3 ; 1.6]
20	HÔPITAL DE CHICOUTIMI	4	0.5	[0.1 ; 1.1]	9	1.1	[0.5 ; 1.9]	4	0.5	[0.1 ; 1.1]
21	HÔPITAL SAINT-LUC DU CHUM	9	0.9	[0.4 ; 1.6]	16	1.6	[0.9 ; 2.4]	2	0.2	[0.0 ; 0.6]
22	HÔTEL-DIEU DU CHUM	14	1.9	[1.0 ; 3.0]	13	1.8	[0.9 ; 2.8]	8	1.1	[0.5 ; 2.0]
24	HÔPITAL DU SAINT- SACREMENT	0	0.0	-	7	1.3	[0.5 ; 2.4]	0	0.0	-
25	HÔPITAL DU SACRÉ- COEUR DE MONTREAL	37	2.5	[1.8 ; 3.4]	33	2.3	[1.6 ; 3.1]	13	0.9	[0.5 ; 1.4]
27	PAVILLON CENTRE HOSPITALIER DE L'UNIVERSITÉ LAVAL	10	0.8	[0.4 ; 1.4]	7	0.6	[0.2 ; 1.1]	1	0.1	[0.0 ; 0.3]
28	PAVILLON SAINT- FRANCOIS D'ASSISE	3	0.3	[0.1 ; 0.8]	7	0.8	[0.3 ; 1.5]	4	0.4	[0.1 ; 1.0]
29	HÔPITAL GÉNÉRAL DE MONTREAL	10	1.2	[0.6 ; 2.0]	13	1.5	[0.8 ; 2.5]	18	2.1	[1.3 ; 3.2]

30	HÔTEL-DIEU DE SHERBROOKE	2	0.3	[0.0 ; 0.8]	2	0.3	[0.0 ; 0.8]	3	0.4	[0.1 ; 1.1]
31	PAVILLON SAINT-JOSEPH	1	0.1	[0.0 ; 0.3]	12	0.9	[0.5 ; 1.6]	3	0.2	[0.0 ; 0.6]
33	INSTITUT UNIVERSITAIRE DE CARDIOLOGIE ET DE PNEUMOLOGIE DE QUÉBEC	5	0.5	[0.2 ; 1.1]	3	0.3	[0.1 ; 0.8]	0	0.0	-
48	CENTRE HOSPITALIER DE ST. MARY	5	0.6	[0.2 ; 1.3]	6	0.7	[0.3 ; 1.5]	2	0.2	[0.0 ; 0.7]
116	INSTITUT THORACIQUE DE MONTRÉAL	2	1.3	[0.1 ; 3.8]	0	0.0	-	0	0.0	-
118	HÔPITAL NEUROLOGIQUE DE MONTRÉAL	2	0.8	[0.1 ; 2.3]	2	0.8	[0.1 ; 2.3]	3	1.2	[0.2 ; 3.0]

Table 9 - Incidence Rates of CRBSI and of BSIs Secondary to Urinary Tract and Pulmonary Infections per Facility and Percentile Ranking, for Non-Teaching Healthcare Facilities, Québec, 2014-2015 (Incidence Rate per 10,000 Patient-Days [95% CI])

Facility	CRBSI			Urinary Tract			Pulmonary		
	Cases (n)	Incidence rates		Cases (n)	Incidence rates		Cases (n)	Incidence rates	
9 HÔPITAL DU HAUT-RICHELIEU	5	0.6	[0.2 ; 1.2]	7	0.8	[0.3 ; 1.5]	5	0.6	[0.2 ; 1.2]
10 HÔPITAL PIERRE-BOUCHER	8	0.7	[0.3 ; 1.3]	16	1.5	[0.8 ; 2.3]	2	0.2	[0.0 ; 0.5]
11 HÔPITAL PIERRE-LE GARDEUR	4	0.4	[0.1 ; 0.8]	21	1.9	[1.2 ; 2.8]	7	0.6	[0.3 ; 1.2]
14 CENTRE HOSPITALIER RÉGIONAL DE LANAUDIÈRE	3	0.3	[0.1 ; 0.8]	12	1.3	[0.6 ; 2.1]	6	0.6	[0.2 ; 1.2]
16 HÔPITAL RÉGIONAL DE RIMOUSKI	4	0.8	[0.2 ; 1.7]	7	1.3	[0.5 ; 2.5]	0	0.0	-
19 HÔPITAL CITÉ DE LA SANTÉ	15	0.9	[0.5 ; 1.4]	25	1.4	[0.9 ; 2.1]	6	0.3	[0.1 ; 0.7]
23 HÔTEL-DIEU D'ARTHABASKA	1	0.2	[0.0 ; 0.8]	0	0.0	-	3	0.6	[0.1 ; 1.4]
26 HÔPITAL DE VERDUN	10	1.4	[0.7 ; 2.4]	14	1.9	[1.1 ; 3.1]	5	0.7	[0.2 ; 1.4]
32 CENTRE HOSPITALIER RÉGIONAL DU GRAND-PORTAGE	0	0.0	-	2	0.7	[0.1 ; 2.0]	0	0.0	-

34	HÔPITAL SANTA CABRINI	1	0.1	[0.0 ; 0.4]	11	1.1	[0.5 ; 1.8]	8	0.8	[0.3 ; 1.4]
35	HÔPITAL HONORÉ-MERCIER	4	0.6	[0.2 ; 1.3]	8	1.2	[0.5 ; 2.1]	3	0.4	[0.1 ; 1.1]
36	HÔPITAL GÉNÉRAL DU LAKESHORE	6	0.9	[0.3 ; 1.7]	17	2.5	[1.4 ; 3.8]	10	1.5	[0.7 ; 2.5]
37	HÔTEL-DIEU DE SOREL	5	1.0	[0.3 ; 2.1]	7	1.4	[0.6 ; 2.7]	1	0.2	[0.0 ; 0.8]
38	HÔPITAL JEAN-TALON	0	0.0	-	18	3.4	[2.0 ; 5.2]	2	0.4	[0.0 ; 1.1]
39	HÔPITAL DE GATINEAU	0	0.0	-	9	1.5	[0.7 ; 2.6]	4	0.7	[0.2 ; 1.5]
40	HÔPITAL DE HULL	3	0.5	[0.1 ; 1.1]	8	1.2	[0.5 ; 2.2]	9	1.4	[0.6 ; 2.4]
41	HÔPITAL DU CENTRE-DE-LA-MAURICIE	0	0.0	-	2	0.5	[0.0 ; 1.3]	1	0.2	[0.0 ; 0.9]
42	CENTRE HOSPITALIER ANNA-LABERGE	1	0.1	[0.0 ; 0.5]	9	1.2	[0.5 ; 2.1]	1	0.1	[0.0 ; 0.5]
44	HÔPITAL SAINTE-CROIX	2	0.4	[0.0 ; 1.0]	3	0.5	[0.1 ; 1.3]	1	0.2	[0.0 ; 0.7]
45	HÔPITAL DE SAINT-EUSTACHE	2	0.2	[0.0 ; 0.6]	8	0.9	[0.4 ; 1.6]	5	0.6	[0.2 ; 1.1]
46	HÔPITAL DE GRANBY	1	0.2	[0.0 ; 0.8]	4	0.9	[0.2 ; 1.9]	3	0.6	[0.1 ; 1.6]
47	HÔPITAL DE ROUYN-NORANDA	0	0.0	-	2	0.8	[0.1 ; 2.3]	1	0.4	[0.0 ; 1.6]
49	CENTRE DE SANTÉ ET DE SERVICES SOCIAUX MEMPHRÉMAGOG	0	0.0	-	1	0.7	[0.0 ; 2.6]	0	0.0	-
51	HÔPITAL DE MANIWAKI	0	0.0	-	0	0.0	-	0	0.0	-
52	HÔPITAL D'AMOS	0	0.0	-	3	1.3	[0.3 ; 3.3]	0	0.0	-
53	HÔPITAL DE CHANDLER	0	0.0	-	1	0.7	[0.0 ; 2.7]	1	0.7	[0.0 ; 2.7]
56	CENTRE DE SANTÉ ET DE SERVICES SOCIAUX D'ARGENTEUIL	1	0.7	[0.0 ; 2.8]	1	0.7	[0.0 ; 2.8]	0	0.0	-
58	HÔPITAL DU SUROÎT	3	0.5	[0.1 ; 1.3]	18	3.2	[1.9 ; 4.9]	4	0.7	[0.2 ; 1.6]
59	HÔPITAL DE BAIE-SAINT-PAUL	0	0.0	-	0	0.0	-	0	0.0	-

61	HÔPITAL NOTRE-DAME-DE-FATIMA	0	0.0	-	0	0.0	-	0	0.0	-
63	HÔPITAL DE SAINT-GEORGES	0	0.0	-	2	0.5	[0.0 ; 1.4]	1	0.2	[0.0 ; 1.0]
64	HÔPITAL LE ROYER	0	0.0	-	3	1.2	[0.2 ; 2.9]	1	0.4	[0.0 ; 1.5]
65	HÔPITAL ET CLSC DE VAL-D'OR	0	0.0	-	4	1.4	[0.4 ; 3.1]	1	0.4	[0.0 ; 1.4]
67	HÔPITAL ET CENTRE DE RÉADAPTATION DE JONQUIÈRE	0	0.0	-	9	2.3	[1.0 ; 4.1]	0	0.0	-
70	CENTRE DE SOINS DE COURTE DURÉE LA SARRE	0	0.0	-	0	0.0	-	0	0.0	-
71	HÔPITAL DE MATANE	0	0.0	-	0	0.0	-	0	0.0	-
72	HÔPITAL ET CENTRE D'HÉBERGEMENT DE SEPT-ÎLES	0	0.0	-	0	0.0	-	2	0.8	[0.1 ; 2.3]
74	HÔPITAL DE DOLBEAU-MISTASSINI	1	0.6	[0.0 ; 2.5]	0	0.0	-	0	0.0	-

Facility	CRBSI			Urinary Tract			Pulmonary			
	Cases (n)	Incidence rates		Cases (n)	Incidence rates		Cases (n)	Incidence rates		
75	CENTRE DE SANTÉ ET DE SERVICES SOCIAUX DU GRANIT	0	0.0	-	1	0.8	[0.0 ; 3.2]	0	0.0	-
76	HÔPITAL DE LACHINE	2	1.1	[0.1 ; 3.3]	9	5.1	[2.3 ; 9.0]	2	1.1	[0.1 ; 3.3]
77	HÔPITAL D'AMQUI	0	0.0	-	0	0.0	-	0	0.0	-
80	HÔPITAL FLEURY	1	0.2	[0.0 ; 0.8]	11	2.3	[1.2 ; 3.9]	2	0.4	[0.0 ; 1.2]
81	HÔPITAL DE MONT-LAURIER	1	0.6	[0.0 ; 2.2]	1	0.6	[0.0 ; 2.2]	0	0.0	-
82	PAVILLON SAINTE-FAMILLE	0	0.0	-	0	0.0	-	0	0.0	-
83	HÔPITAL DE LASALLE	0	0.0	-	0	0.0	-	0	0.0	-
84	HÔPITAL DE NOTRE-DAME-DU-LAC	0	0.0	-	0	0.0	-	0	0.0	-
85	CENTRE DE SANTÉ ET DE SERVICES SOCIAUX DU HAUT-SAINT-MAURICE	0	0.0	-	0	0.0	-	0	0.0	-
86	HÔPITAL DE LA MALBAIE	0	0.0	-	0	0.0	-	0	0.0	-

88	HÔPITAL, CLSC ET CENTRE D'HÉBERGEMENT DE ROBERVAL	1	0.3	[0.0 ; 1.3]	1	0.3	[0.0 ; 1.3]	0	0.0	-
89	HÔPITAL DE MONTMAGNY	0	0.0	-	0	0.0	-	1	0.5	[0.0 ; 2.1]
91	HÔPITAL HÔTEL-DIEU DE GASPÉ	1	1.0	[0.0 ; 3.9]	0	0.0	-	0	0.0	-
95	HÔPITAL DU PONTIAC	0	0.0	-	0	0.0	-	0	0.0	-
96	CENTRE DE SANTÉ DE CHIBOUGAMAU	0	0.0	-	0	0.0	-	0	0.0	-
97	HÔPITAL DE MARIA	0	0.0	-	3	1.5	[0.3 ; 3.7]	0	0.0	-
99	HÔPITAL BROME-MISSISQUOI-PERKINS	0	0.0	-	1	0.4	[0.0 ; 1.4]	3	1.1	[0.2 ; 2.6]
100	HÔPITAL DE LA BAIE	0	0.0	-	0	0.0	-	0	0.0	-
101	HÔPITAL RÉGIONAL DE SAINT-JÉRÔME	16	1.4	[0.8 ; 2.2]	19	1.7	[1.0 ; 2.5]	1	0.1	[0.0 ; 0.3]
103	HÔPITAL LAURENTIEN	1	0.4	[0.0 ; 1.4]	0	0.0	-	0	0.0	-
107	HÔPITAL DE L'ARCHIPEL	0	0.0	-	1	1.3	[0.0 ; 5.2]	0	0.0	-
109	HÔPITAL DE SAINTE-ANNE-DES-MONTS	0	0.0	-	0	0.0	-	0	0.0	-
111	HÔPITAL DE PAPINEAU	1	0.5	[0.0 ; 2.0]	0	0.0	-	1	0.5	[0.0 ; 2.0]
112	HÔPITAL D'ALMA	1	0.3	[0.0 ; 1.3]	1	0.3	[0.0 ; 1.3]	2	0.7	[0.1 ; 1.9]
113	HÔPITAL DE THETFORD MINES	0	0.0	-	4	1.5	[0.4 ; 3.4]	1	0.4	[0.0 ; 1.5]

Abbreviations

95% CI: 95% confidence interval

BSI: bloodstream infection

CoNS: coagulase-negative *Staphylococcus*

CRBSI: catheter-related bloodstream infection

HD: hemodialysis

ICU: intensive care unit

MBI: mucosal barrier injury

Non-CRBSI: non-catheter-related primary bloodstream infection

SSI: surgical site infection

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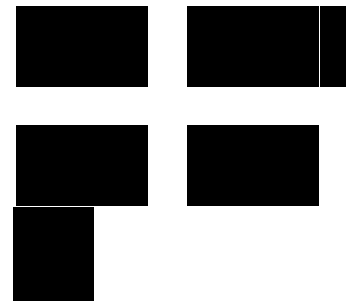
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