Table 1.

Laboratory number	Patient population suitable for reflex	WBC cut off	Leukocyte esterase	Nitrite	Bacteria	Other criteria	Epithelial cells (exclusion criteria)
1, 9	All	≥ 5	Positive	Positive			
2	All		≥ Trace	Positive	≥ Few	Blood	
3	All	≥ 25	Large	Positive			
4	All	≥ 10	Positive	Positive	≥ Many		≥ 10
5	All	≥ 10					
6	All	≥ 5	≥ Moderate	Positive	≥ Few	Yeast	≥ 5
7	All	≥ 10			≥ Moderate		
8	All	≥ 10		Positive	≥ Moderate		
10	ER, inpatients, and some obstetrics (provider dependent)	≥ 3	Positive	Positive	≥ Few		
11	All	≥ 5					
12	Inpatients	≥ 5	Positive	Positive			≥ 15
13, 25	All		Positive	Positive			
14	All	≥ 10	Positive	Positive			
15	Only patients 12 years old or younger	≥ 5	Positive	Positive	≥ Moderate		
16	All				≥ Few		
17	All	≥ 5		Positive			
18	Emergency room and nursing home patients	≥ 5	Positive	Positive	≥ Few	Blood	
19	All	≥ 5			≥ Moderate		
20	All		Positive				
21	All	≥ 10	≥ Trace	Positive	≥ Many		
22	All	Any positive	≥ Trace	Positive	≥ Few		
23	All		≥ Trace	Positive	≥ Moderate		
24	All	≥ 5	Positive	Positive	≥ Few		
26	All	≥ 10	Positive	Positive	≥ Moderate		
27	All		Positive	Positive	≥ Moderate		
28	Emergency room	≥ 5	Positive	Positive	≥ Few		

Table 1: Urinalysis criteria for reflexing to urine culture in DICON hospital laboratories

Presentation Type:
Poster Presentation
Regional Supervision of Healthcare Institutions With a Focus on Antimicrobial Resistance
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Background: Resistance to antibiotic drugs, also called antimicrobial resistance (AMR) is a serious threat to (public) health. Surveillance reports throughout the world show that formation and spread of highly resistant microorganisms (HRMOs) continues to be substantial. In The Netherlands, 10 regional collaborative networks on AMR have been established among healthcare institutions to mitigate the existing risks concerning HRMO by collaborative actions in antibiotic stewardship and infection prevention. **Objective:** We sought to determine whether the healthcare institutions in one of the regional collaborative networks in The Netherlands contribute adequately to reducing the risks of formation and/or spread of HRMO. **Methods:** The Health and Youth Care Inspectorate in The Netherlands visited 37 institutions in the region of Limburg (the southern province). The following healthcare sectors were included: hospitals (n = 5), rehabilitation clinics (n = 2), long-term care facilities (n = 5), homecare institutions (n = 4), mental healthcare institutions (n = 2), dental care clinics (n = 4), general practitioners (GPs; n = 10), municipal health services (n = 2) and healthcare facilities for mentally disabled people (n = 3). In each visit, 5 topics were addressed: antibiotic policy, infection prevention, information transfer, governance and collaboration in the region. **Results and Conclusions:** In general, the healthcare institutions had an adequate to good score. Good results were seen in antibiotic policy (ie, the use of diagnostic tools to avoid the use of antibiotics); information transfer among GPs and in homecare institutions; and infection prevention in homecare institutions and dental care clinics. Exceptions with inadequate scores were observed in several areas: absence of prescription guidance specifically for antibiotics in various sectors;

infection prevention among GPs, and dental care clinics. In 4 cases (ie, 3 GPs and 1 dental care clinic), we stopped using the autoclave because of lack of proof of proper maintenance.

Presentation Type:
Poster Presentation

Reporting Surgical Site Infections (SSIs) Using Different Surveillance Systems— Complexity of Infection Matters

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Background: In Alberta, Canada, surgical site infections (SSIs) following total hip (THR) and knee replacements (TKR) are reported using 2 data sources: infection prevention and control (IPC), which surveys all THR and TKR using NHSN definitions and the Canadian *International Classification of Disease, Tenth Revision* (ICD-10-CA) codes, and the National Surgical Quality Improvement Program (NSQIP), which uses a systematic sampling process that involves an 8-day cycle schedule, modified NHSN definitions and current procedural terminology (CPT) codes. We compared the similarities and discrepancies in THR/TKR SSI reporting. **Methods:** A retrospective multisite cohort study of IPC and NSQIP THR/TKR SSI data at 4 hospitals was performed. SSI data were collected between September 1, 2015, and March 31, 2018. Demographic information and complex and total SSIs reported by IPC and NSQIP were compared for both THR and TKR surgeries. To determine whether both data sources reported similar trends over time, total SSIs by quarter were compared. Univariate analyses using a t test for age and the χ^2 test for gender for complex SSIs and total SSIs was performed. The Pearson correlation and the Shapiro-Wilk test were used to assess the THR and TKR trends between the 2 data sources. A P value of <.05 was considered significant. **Results:** Following the removal of duplicates and missing data, 7,549 IPC and 2,037 NSQIP patients, respectively, were compared. Age, gender, and other demographic parameters were not significantly different. Total THR and TKR SSIs per 100 procedures using NSQIP data were significantly higher than the same rates using IPC data: THR, 2.25 versus 0.92 ($P < .05$) and TKR, 3.43 versus 1.26 ($P < .05$). Both IPC and NSQIP data indicated increasing total THR SSI rates over time, but with different magnitudes ($r = 0.658$). For total TKR SSI, the IPC rate decreased, whereas the NSQIP rate increased over the same period ($r = 0.374$). When superficial SSIs were excluded, the rates reported between IPC and NSQIP data by hospital and by procedure type were more comparable, with trends toward higher rates reported by NSQIP for THR than for TKR: THR, 1.19 versus 0.68 ($P = 0.15$) and TKR, 0.92 versus 0.80 ($P = .68$). **Conclusions:** Different approaches used to monitor SSIs following surgeries may lead to different

results and trend patterns. NSQIP reports total SSI rates that are significantly higher than the IPC Alberta orthopedic population predominantly as a result of increased identification of superficial SSIs. Because the diagnosis of superficial SSIs may be less reliable, SSI reporting should focus on complex infections.

Presentation Type:
Poster Presentation

Resistance Trends in Pathogens Causing Healthcare-Associated Infections in Multiple Hospitals in Saudi Arabia, 2007–2016

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Background: Studying temporal changes in resistant pathogens causing healthcare-associated infections (HAIs) is crucial in improving local antimicrobial and infection control practices. We analyzed 10-year trends in resistance in pathogens causing HAIs in a tertiary-care setting in Saudi Arabia and we compared such trends with those of the US NHSN. **Methods:** We performed a pooled analysis of surveillance data that were prospectively collected between 2007 and 2016 in 4 hospitals of the Ministry of National Guard Health Affairs. Definitions and methodology of HAIs and antimicrobial resistance were based on NHSN methods. Consecutive NHSN reports were used for comparisons. **Results:** In total, 1,544 pathogens causing 1,531 HAI events were included. Gram-negative pathogens (GNPs) were responsible for 63% of HAIs, with a significant increasing trend in *Klebsiella* spp and a decreasing trend in *Acinetobacter* spp. Methicillin-resistant *Staphylococcus aureus* (27.0%) was consistently less frequent than NHSN reports. Vancomycin-resistant *Enterococci* (20.3%) more than doubled during the study, closing the gap with the NHSN. Carbapenem resistance was highest for *Acinetobacter* (68.3%) and *Pseudomonas* (36.8%). Increasing trends of carbapenem resistance were highest for *Pseudomonas* and *Enterobacteriaceae*, closing the initial gaps with the NHSN. With the exception of *Klebsiella* and *Enterobacter*, multidrug-resistant (MDR) GNPs generally decreased, mainly due to the decreasing resistance to cephalosporins, fluoroquinolones, and aminoglycosides. **Conclusions:** The current trends probably reflect multiple local interventions to reduce HAIs and MDR as well as the heavy use of carbapenems and vancomycin. Our main challenge remains to further enhance the newly launched antimicrobial stewardship practices.