Antibiogrammes et rapports MYLA – La valeur de l’informatique et des données

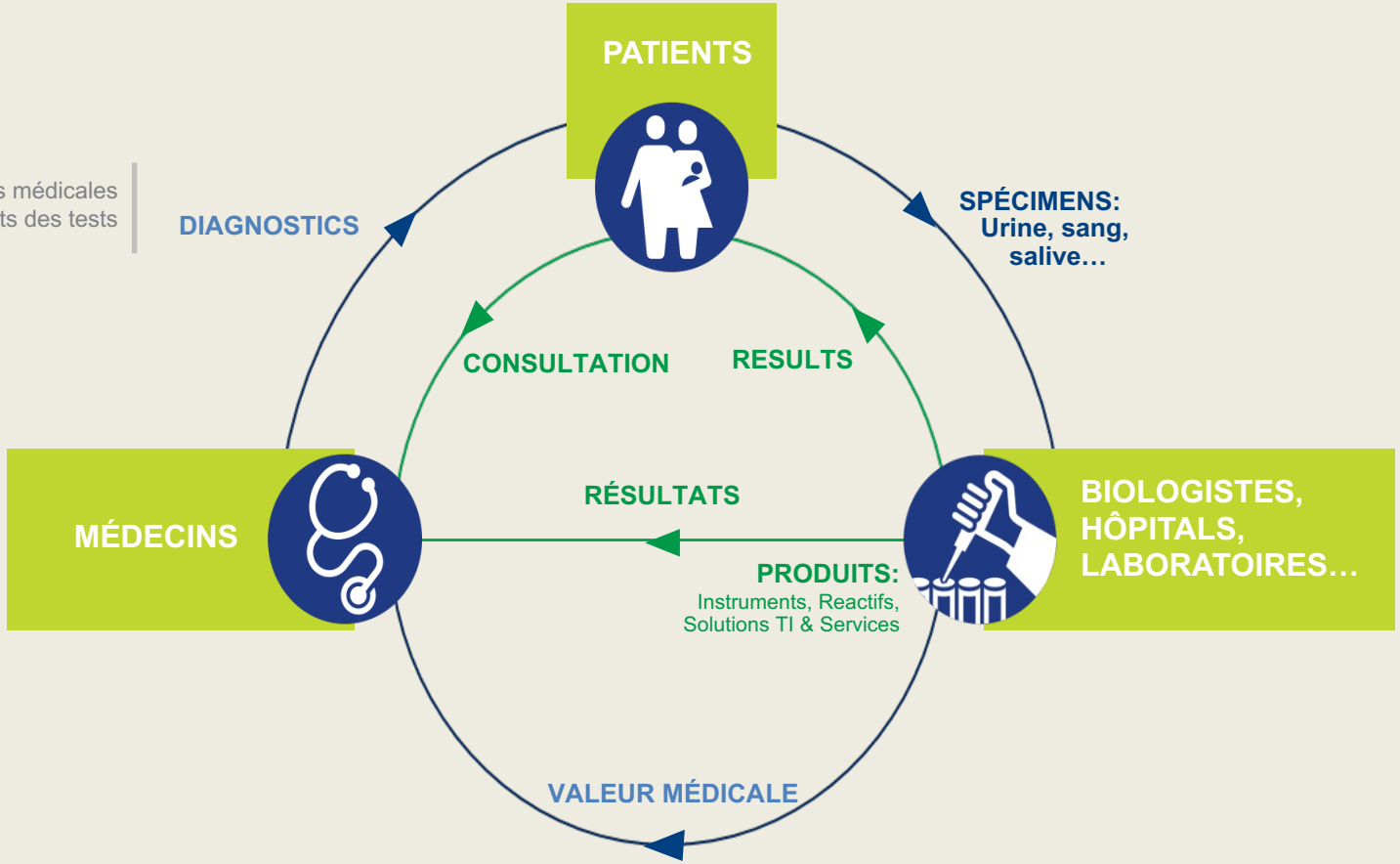
Danielle Brabant-Kirwan, PhD, FCCM, D(ABMM)
Microbiologiste
Horizon Santé-Nord

OBJECTIFS

- Comprendre les intégrations des systèmes disponibles avec MYLA
- Comprendre l'importance des informations recueillies avec MYLA
- Décrire les principaux avantages créés par MYLA au niveau du laboratoire et au niveau clinique

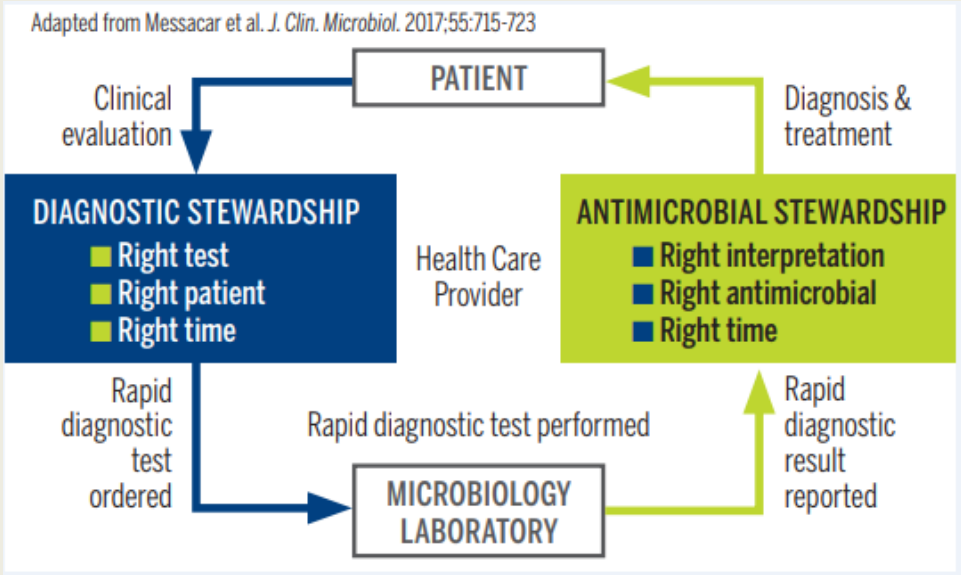
Le travail de laboratoire en microbiologie est essentiel pour optimiser les soins aux patients infectés

60 à 70% des décisions médicales reposent sur les résultats des tests



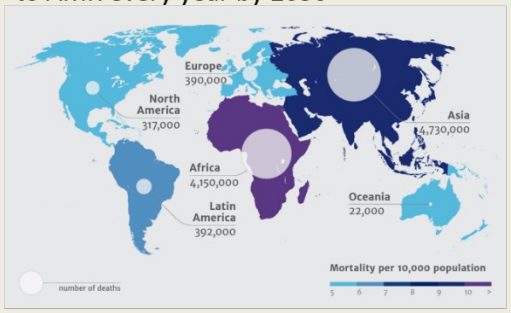
* The Lewin Group, Inc. The Value of Diagnostics Innovation, Adoption and Diffusion into Healthcare (July 2005)

Le role du laboratoire de microbiologie

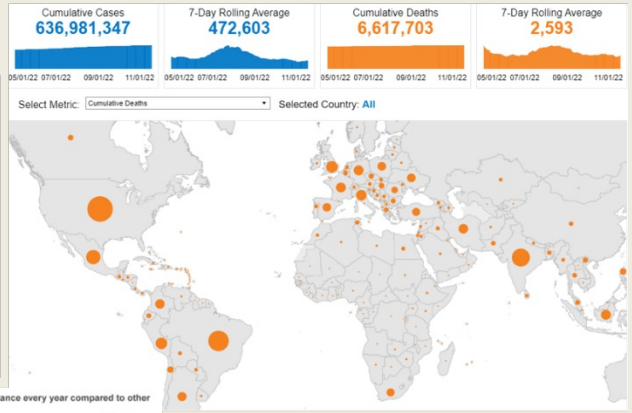


https://amr.biomerieux.com/en/solutions/diagnostic-stewardship/

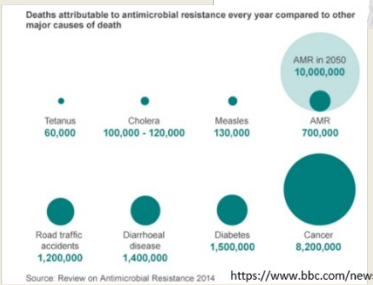
Estimated number of Deaths attributable to AMR every year by 2050



https://www.vox.com/2014/12/12/7382299/new-report-drug-resistant-infections-will-kill-more-people-than

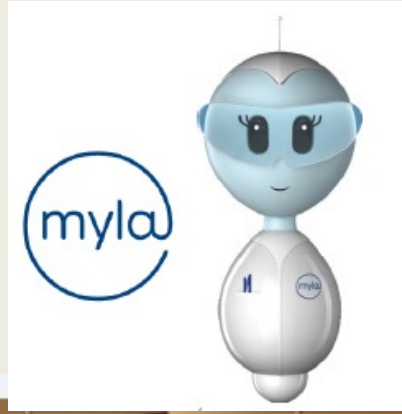


https://www.kff.org/coronavirus-covid-19/issue-brief/global-covid-19-tracker/



https://www.bbc.com/news/health-30416844

Intégration des systèmes

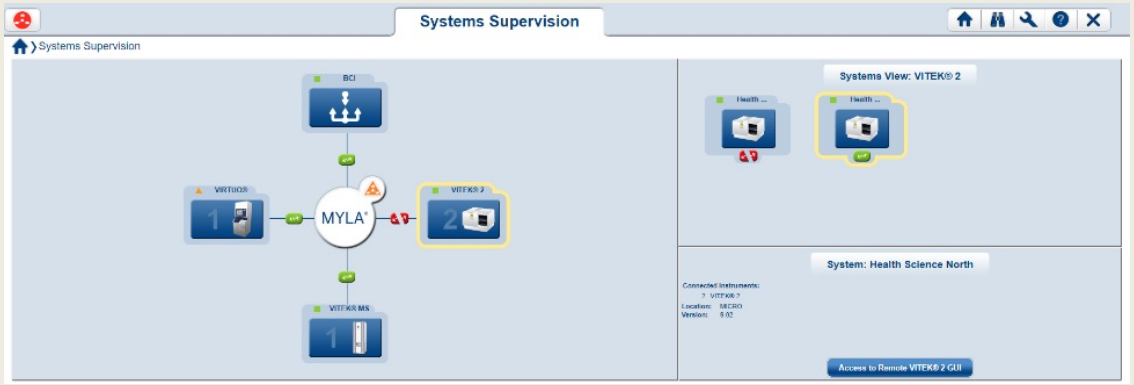


MYLA® transforme les données en informations exploitables

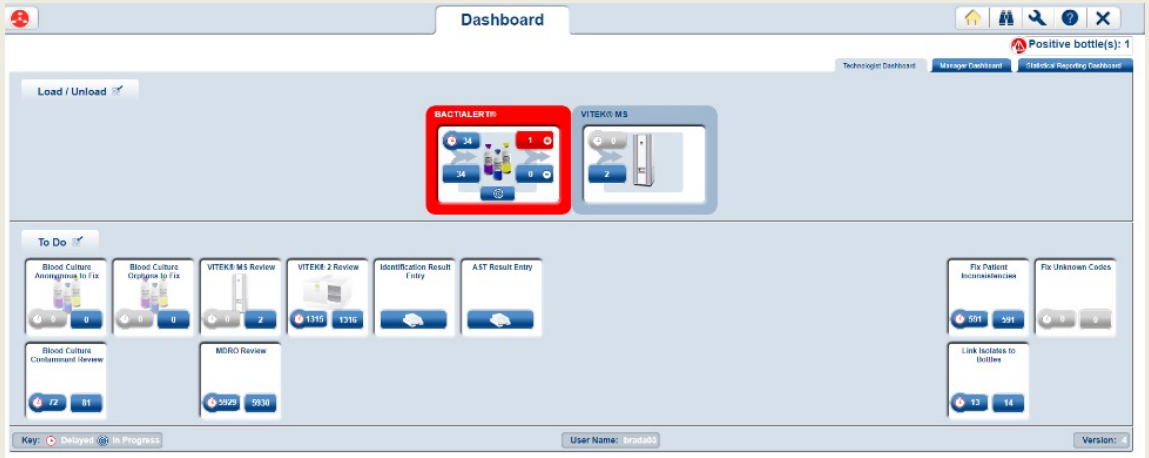
- MYLA fournit des informations exploitables
  - Améliorer la qualité de la décision initiale de prescrire un antibiotique
  - Pour un prélèvement d'échantillon optimisé
  - Fonder les décisions d'antibio gouvernance sur les FAITS et les CHIFFRES afin de minimiser l'émergence et la propagation de la résistance aux antibiotiques

MYLA

- Permet de surveiller en temps réel tout problème de connectivité et/ou alerte
- Surveiller de mon bureau à distance et à domicile en utilisant un VPN



- Surveillance d'hémocultures et des plaques cibles de VITEK MS en progrès
- Revue VITEK MS (Je peux voir les échantillons dans le processus d'avoir une identification)



Rapports statistiques

Septicémie

SEPTICÉMIE

La cause de décès la plus évitable au niveau mondial

	Pourcentage de tous les décès	
	Canada	États-Unis
Toutes causes des décès	100.0%	100.0%
Cancer	26.4%	17.8%
Autres	23.5%	18.9%
Maladies du cœur	18.1%	20.6%
COVID	5.3%	10.4%
Accidents	5.0%	5.9%
AVC	4.5%	4.7%
Maladies pulmonaires	4.4%	4.5%
Diabète	2.5%	3.0%
Grippe et pneumonie	1.9%	1.6%
Alzheimer/démence	1.9%	7.7%
Maladies du rein	1.4%	
Maladies du foie	1.4%	1.5%
Suicide	1.2%	1.4%
Maladie de Parkinson	1.1%	
Septicémie	0.7%	
Hypertension	0.6%	1.2%
Agressions	0.1%	0.7%

https://www.voiraudeladurisque.ca/2022/02/comment-sommes-nous-morts-en-2020-le-canada-contre-les-etats-unis/

On estime que **48,9 millions de cas de septicémie** et **11 millions de décès liés à la septicémie ont** été signalés dans le monde. Cela représente près **de 20 % de tous les décès dans le monde.** [1] De plus, on estime que la septicémie coûte **aux Canadiens 1,7 milliard de dollars par année.** [2]

Si la septicémie n'est pas reconnue tôt, elle peut entraîner un choc septique, une défaillance d'organe et la mort. Notre objectif est de réduire le fardeau de la septicémie pour les patients et leurs familles au Canada, en comprenant mieux les causes et en améliorant la prévention, la détection et la gestion de la septicémie.

« Une infection à mon doigt n'a pas reçu le traitement approprié et opportun. En conséquence, j'ai vécu une expérience qui a changé ma vie, proche de la mort. En tant que patient partenaire de Sepsis Canada, je fais ce que je peux pour aider les survivants de la septicémie et les chercheurs médicaux qui travaillent sans relâche pour trouver des solutions aux défis de la septicémie.

-Sepsis Survivor, Sepsis Canada Patient Advisor, Mac Horsburgh (photo de droite)

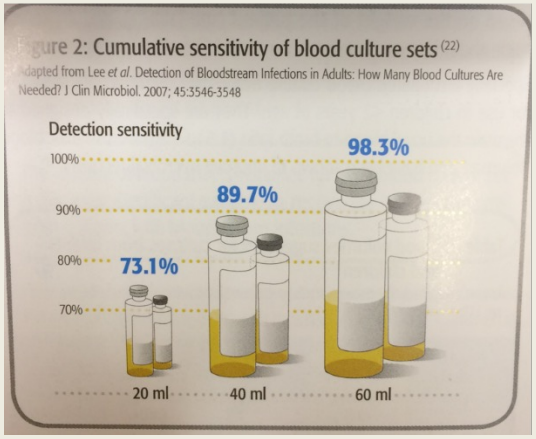
https://www.sepsiscanada.ca/

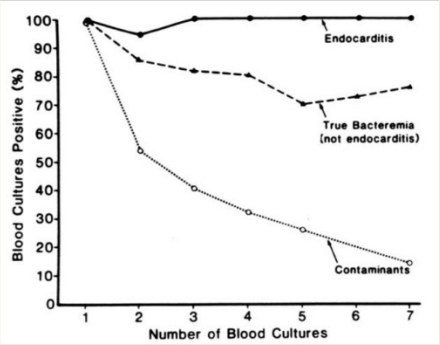
Points à surveiller dans la gestion des infections du sang

Volume prélevé inadéquat	Contamination des hémocultures	Nombre d'hémoculture inadéquat par ensemble / épisode
Délai entre la collecte de sang et l'incubation	Délai entre la détection positive de l'hémoculture et l'émission du rapport	Efficacité de la formation / l'éducation
Modèle organisationnel	Comprendre l'épidémiologie de l'hémoculture	Communication appropriée avec le clinicien

GESTION DES INFECTIONS DU SANG

How many blood culture sets?





- "**<u>The volume of blood</u>** that is obtained for each blood culture set is the single most important variable in recovering microorganisms from patients with bloodstream infections". (Cumitech 1C)

11

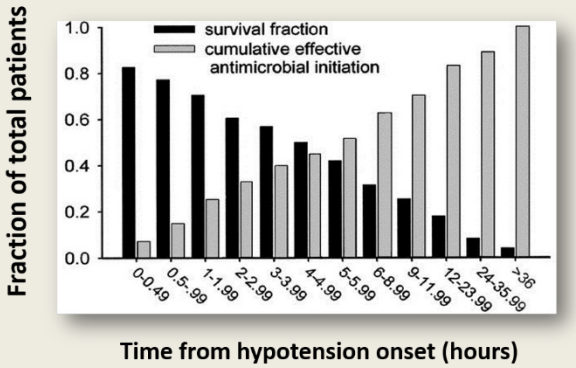
Table 1. Total number of all pathogens recovered related to the volume of blood cultured.

	No. of patients, by volume of blood			
Patient group	10 mL	20 mL	30 mL	40 mL
No endocarditis	235	305	346	371

Table 2. Percentage increase for all pathogens recovered related to the volume of blood cultured.

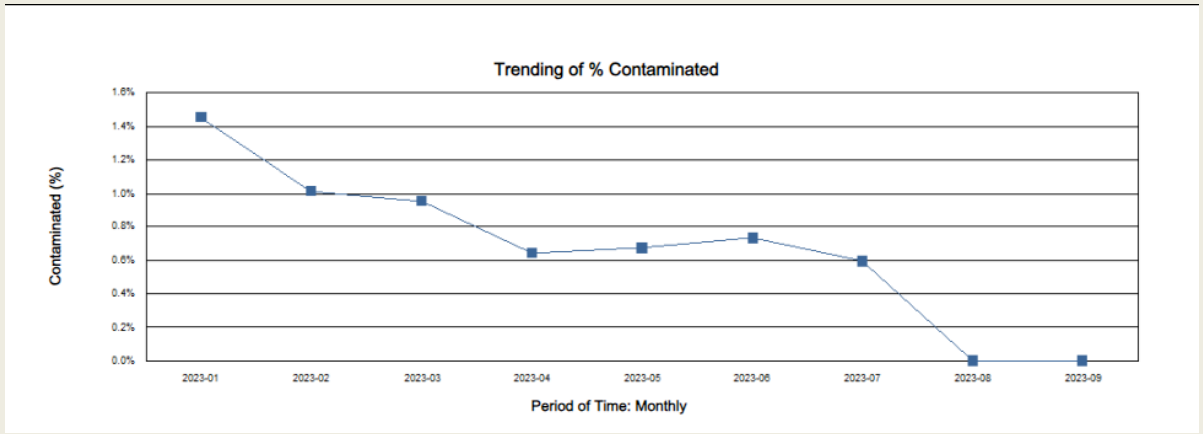
	Percentage increase for all pathogens, by volume of blood					
Patient group	20 mL vs. 10 mL	30 mL vs. 10 mL	30 mL vs. 20 mL	40 mL vs. 10 mL	40 mL vs. 20 mL	40 mL vs. 30 mL
No endocarditis	29.8	47.2	13.4	57.9	21.6	7.2

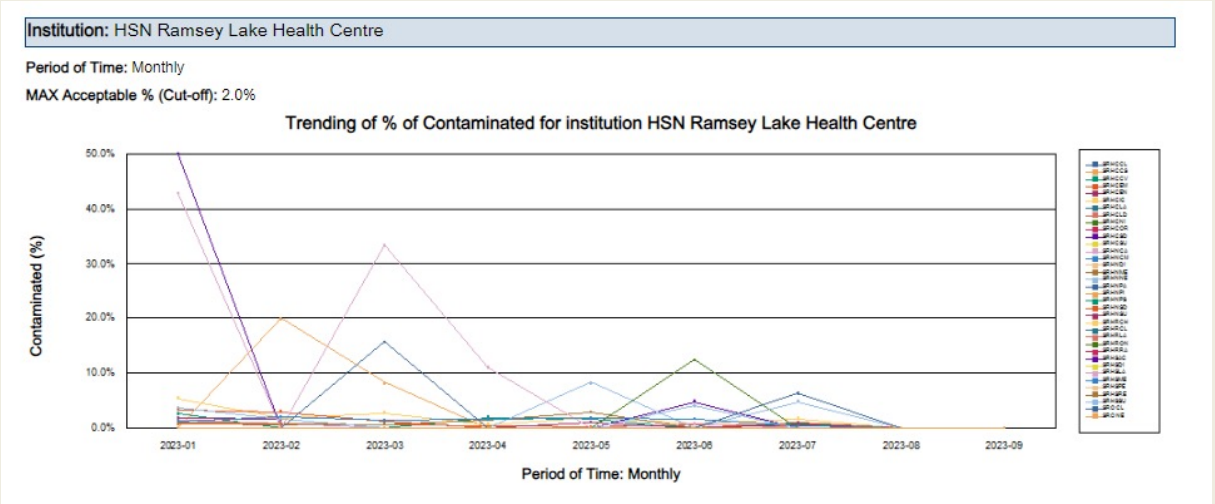
Antimicrobial Therapy

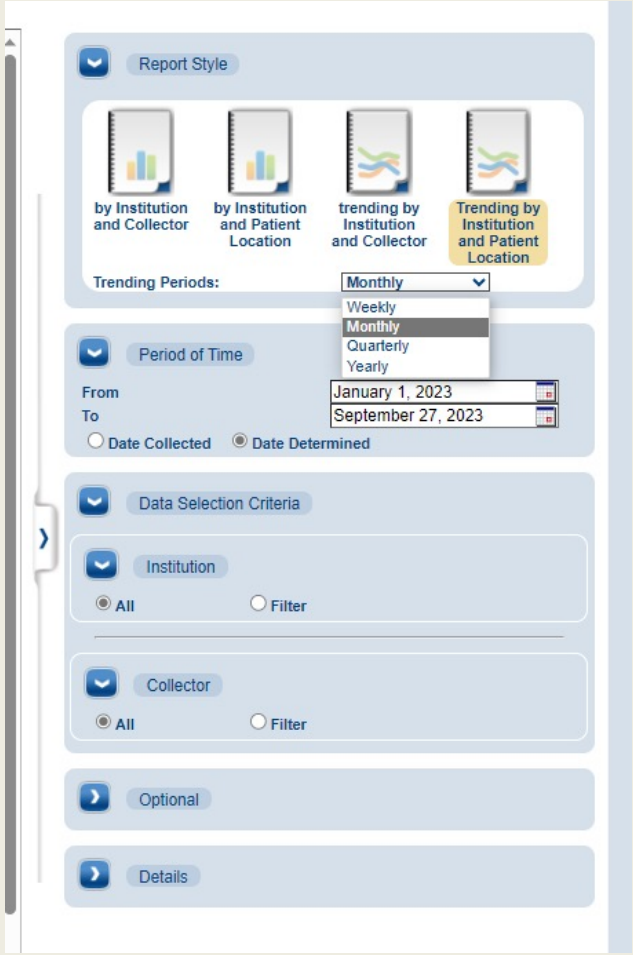


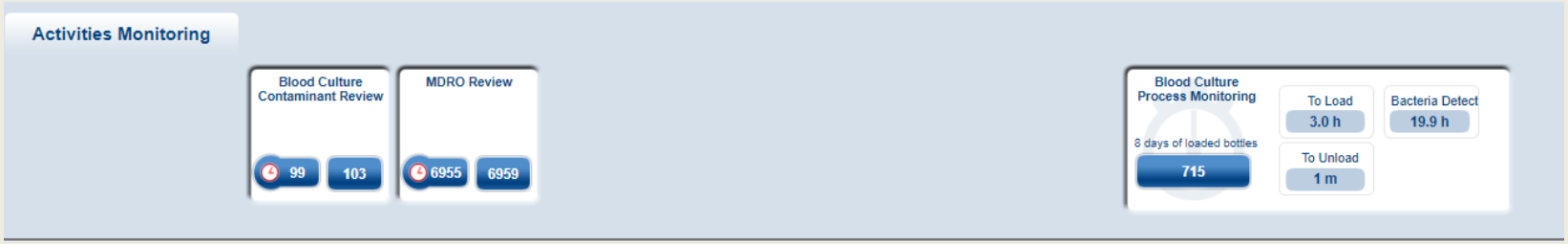
- Antibiotics must be started rapidly to treat the underlying infection
- <u>Early appropriate antibiotic</u> administration is critical for the survival of the patient

MYLA: Contamination

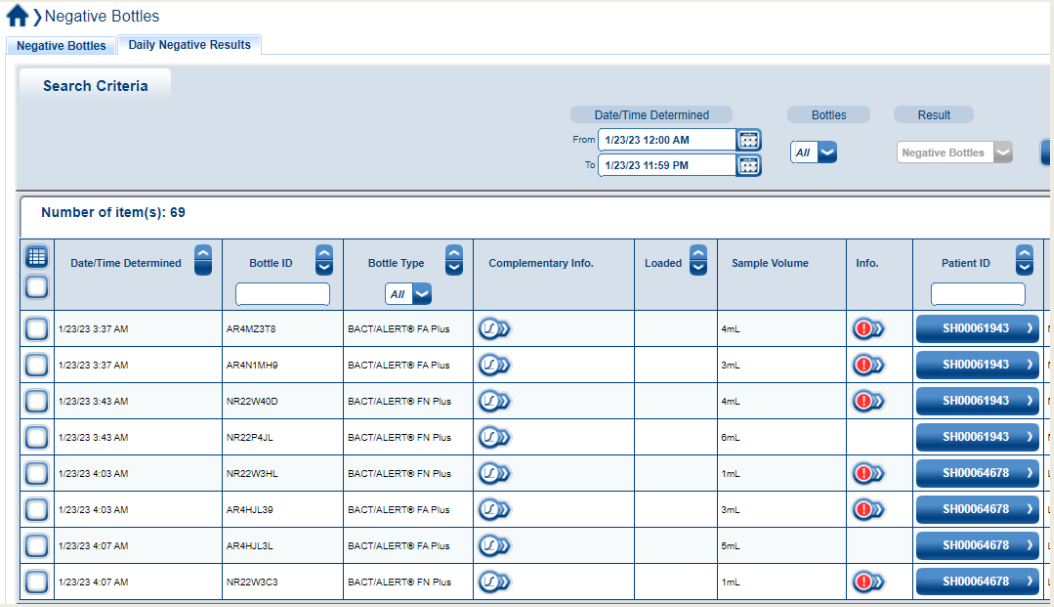








Volume d'hémoculture



Negative Bottles

Negative Bottles | Daily Negative Results

Search Criteria

Date/Time Determined — From 1/23/23 12:00 AM — To 1/23/23 11:59 PM

Bottles: All

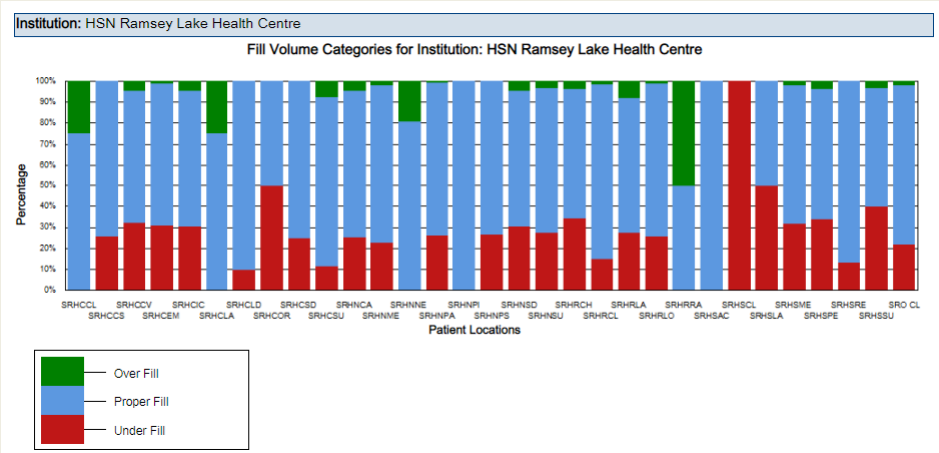
Result: Negative Bottles

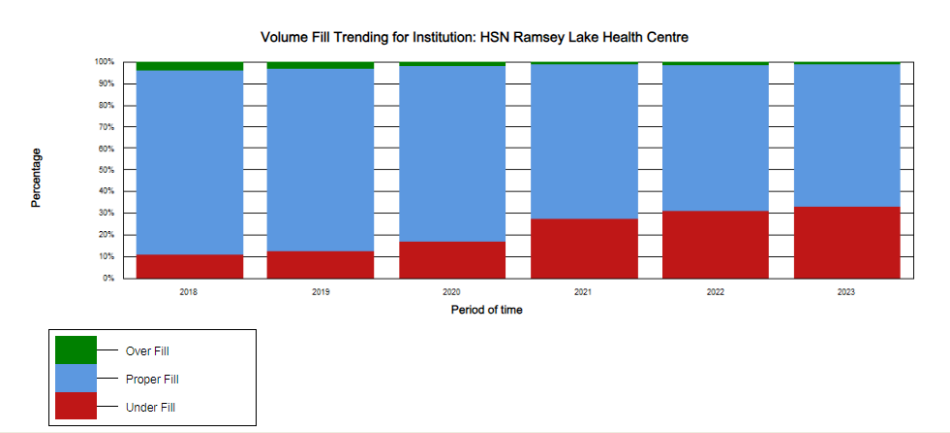
Number of item(s): 69

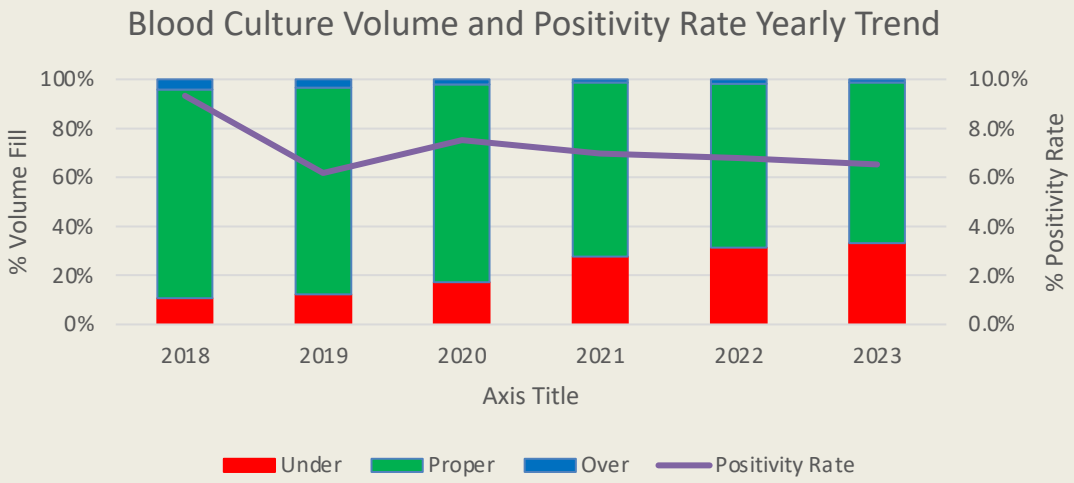
Date/Time Determined	Bottle ID	Bottle Type	Complementary Info.	Loaded	Sample Volume	Info.	Patient ID
1/23/23 3:37 AM	AR4MZ3T8	BACT/ALERT® FA Plus			4mL		SH00061943
1/23/23 3:37 AM	AR4N1MH9	BACT/ALERT® FA Plus			3mL		SH00061943
1/23/23 3:43 AM	NR22W40D	BACT/ALERT® FN Plus			4mL		SH00061943
1/23/23 3:43 AM	NR22P4JL	BACT/ALERT® FN Plus			6mL		SH00061943
1/23/23 4:03 AM	NR22W3HL	BACT/ALERT® FN Plus			1mL		SH00064678
1/23/23 4:03 AM	AR4HJL39	BACT/ALERT® FA Plus			3mL		SH00064678
1/23/23 4:07 AM	AR4HJL3L	BACT/ALERT® FA Plus			5mL		SH00064678
1/23/23 4:07 AM	NR22W3C3	BACT/ALERT® FN Plus			1mL		SH00064678

- Ancienne méthode (défi):
  - Mesure de façon visuelle or par poids
- VirtuO + MYLA:
  - Camera + Alerte

MYLA: Volume


Institution: HSN Ramsey Lake Health Centre
Fill Volume Categories for Institution: HSN Ramsey Lake Health Centre
Percentage
Patient Locations
Over Fill
Proper Fill
Under Fill


Volume Fill Trending for Institution: HSN Ramsey Lake Health Centre
Percentage
Period of time
Over Fill
Proper Fill
Under Fill


Blood Culture Volume and Positivity Rate Yearly Trend
% Volume Fill
% Positivity Rate
Axis Title
Under
Proper
Over
Positivity Rate

Projet en cours

- Créer un message qui mappe directement sur le rapport finale pour avertir les médecins que le volume n'a pas été obtenue

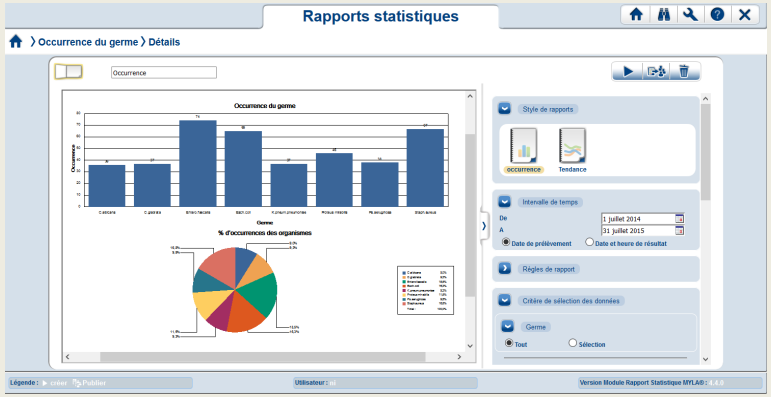
SPDESC:
ORDERED: Blood Culture
COMMENTS: Is the patient less than 80 lbs (36.4 kg)? N
QUERIES: Is patient on antibiotics? Unknown

Procedure	Result	Verified Date - Time
M I C R O B I O L O G Y		
Blood Culture HSN	Final	19/01/23-1035
Suboptimal volume of blood collected in both aerobic and anaerobic bottles. Results to be interpreted in the context of the clinical signs and symptoms of the patient.		
Blood Culture Aerobic HSN	Preliminary	16/01/23-2157
No growth after 2 days incubation		
Blood Culture Anaerobic HSN	Preliminary	16/01/23-2157
No growth after 2 days incubation		

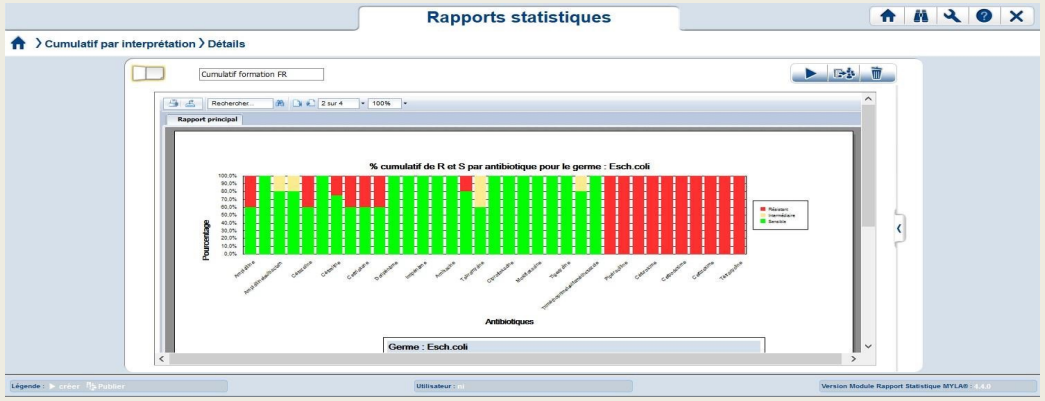
- Education ciblé avec les services et préleveurs qui n'obtient pas le volume adéquat
- Projet de recherche: Est-ce que le volume 8-10mL est encore nécessaire?

LA LUTTE CONTRE LES RÉSISTANCES MICROBIENNES

- Occurrence du germe

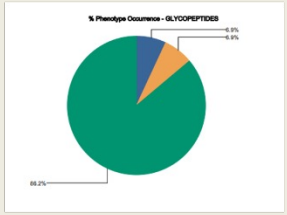


- Rapport Cumulatif

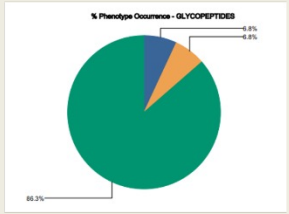


Tendance VRE

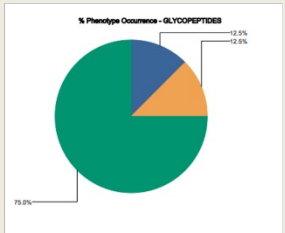
- 2019



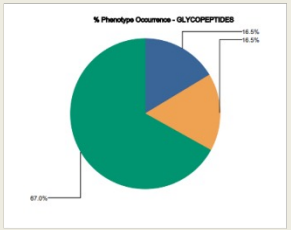
- 2020



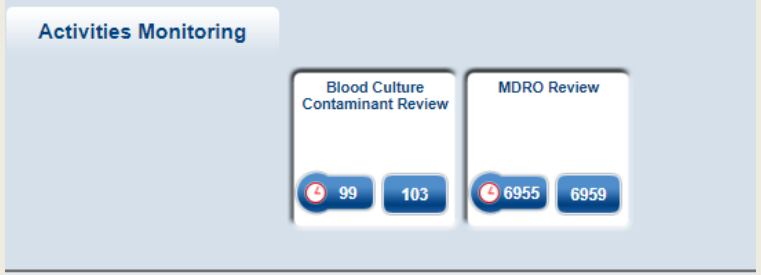
- 2021



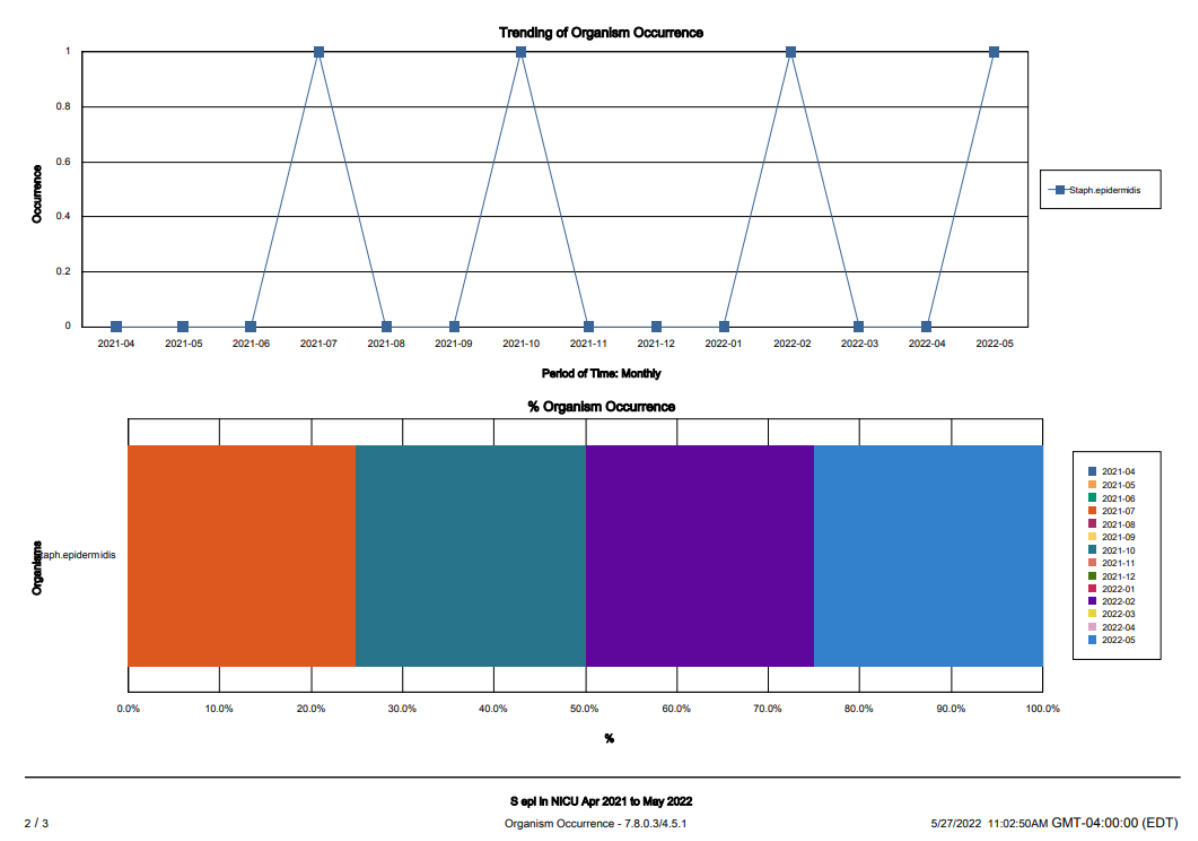
- 2022



- Gestion des BMR



Demande du comité IPAC



- IPAC: Augmentation the Staph dans l’unité de soins intensifs néonatals??

Antibiogramme Ciblé

The Antimicrobial Stewardship Program is a multidisciplinary team including Infectious Disease Specialist, Clinical Pharmacy Specialists Nurse Clinician, Medical Microbiologist, Chief Microbiology Technologist, Pharmacy Management, Infection Prevention and Control Nurse, Quality and Patient Safety Representative, Four Physician Champions, Decision Support

DID YOU KNOW?

The Antimicrobial Stewardship Program has implemented more than eight public health ASP core strategies.

Health Sciences North ASP Antimicrobial Stewardship Program

#1 Created ED/ICU/Hospital wide Antibiogram

#2 Prospective Audit and Feedback in the ICU

#3 Cascading Microbiology Susceptibility Reporting

#4 Intravenous to Oral Conversion

#5 Improved Diagnostics with the implementation of the MaldiTof

#6 Surgical Antibiotic Prophylaxis Optimization

#7 Therapeutic Drug Monitoring with Feedback

#8 Identification of inappropriate pathogen/ antimicrobial combinations

Enterobacteriaceae – ESBL			
	1st line Drugs/Comments	**2nd Line Drugs/Comments**	**Comments**
Cerebrospinal Fluid (CSF), including CSF from Ventriculoperitoneal (VP) Shunts, brain abscess/tissue isolates	o Meropenem	o Trimethoprim/sulfamethoxazole	
Blood/Sterile sites	o Report Ceftriaxone as R o Ciprofloxacin o Meropenem	o Trimethoprim/sulfamethoxazole o Gentamicin: If R to all 1st line o Tobramycin: If R to Gentamicin o Amikacin: if R to Tobramcyin o Ertapenem: if requested	
Respiratory/non-sterile sites	o Report Ceftriaxone as R o Ciprofloxacin o Meropenem	o Trimethoprim/sulfamethoxazole o Gentamicin: If R to all 1st line o Tobramycin: If R to Gentamicin o Amikacin: if R to Tobramcyin o Ertapenem: if requested	
Urine	o Report ceftriaxone as R o Trimethoprim/sulfamethoxazole o Nitrofurantoin o Ciprofloxacin	o Ertapenem: if requested o Meropenem: if requested o Piperacillin/Tazobactam: if requested o Tobramycin and gentamicin: if requested	

***Pseudomonas aeruginosa* Other *Pseudomonas sp.* Other non-fastidious non-fermenters**			
	1st line Drugs/Comments	**2nd Line Drugs/Comments**	**Comments**
Cerebrospinal Fluid (CSF), including CSF from Ventriculoperitoneal (VP) Shunts, brain abscess/tissue isolates	o Ceftazidime o Meropenem	o Tobramycin: if all 1st line is R o Gentamicin: if Tobramycin is I or R o Ciprofloxacin: if all 1st line is R and >18 years of age o Piperacillin/Tazobactam	o If releasing Gentamicin or Tobramycin, add mnemonic SRMGTCT
Blood/Sterile sites	o Ceftazidime o Ciprofloxacin o Piperacillin/Tazobactam o Tobramycin o If carbapenem I or R, report	o Gentamicin: if Tobramycin I or R o Amikacin: if Tobramycin I or R o Meropenem: if ceftazidime, ciprofloxacin and Pip/tazo are R	o If releasing Gentamicin or Tobramycin, add mnemonic SRMGTCT

Option Meditech

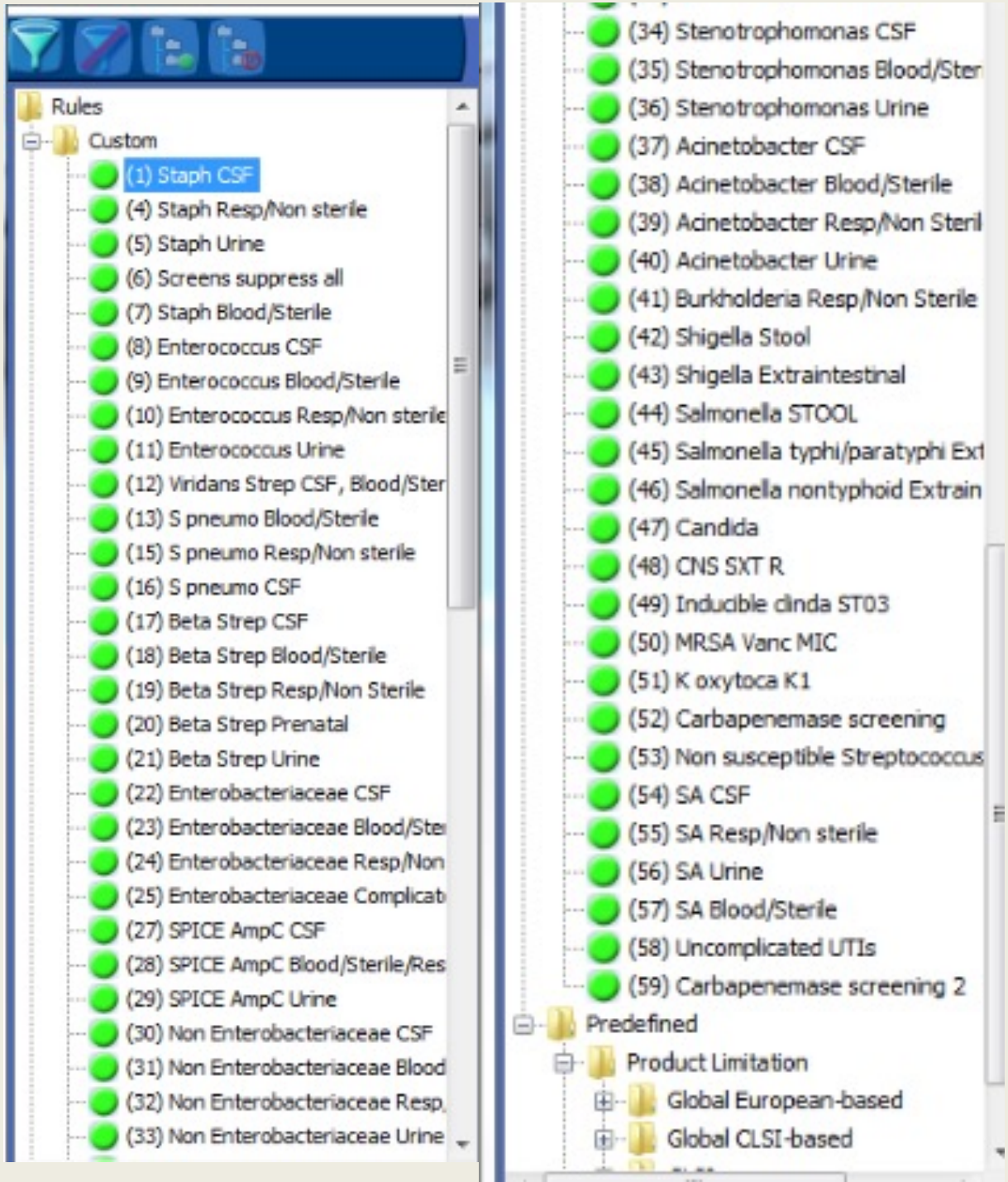
```
---------------------------------------------------------------------------------
MNEMONIC          DESCRIPTION                          ACTIVE  TYPE
---------------------------------------------------------------------------------
CZ06              CZ06 NP/URINE,'ESC,'PRO,'KLEB        Y       ANTI

     LABEL  ANTIBIOTIC  ANTIBIOTIC NAME                  TRIG? WHEN
     CZ06   CZ06        CEFAZOLIN 06                       Y   BOTH

     CALCULATION LOGIC
     ;This calulation will NP CZ06 if the source is urine and the organism
     ;is NOT ESCCOC and NOT PRIMIR and NOT KLEPNE.

     [f morg mne]="ESCCOL"^B,
     [f morg mne]="PROMIR"^C,
     [f morg mne]="KLEPNE"^D,
     [f msp src]="URI"^E,

     IF{(E&('B&'C&'D)) [f mrx add np](CZ06)};

CZESCCOL          CZ06 COMMENT ESCCOL                  Y       ANTI

     LABEL  ANTIBIOTIC  ANTIBIOTIC NAME                  TRIG? WHEN
     CZ06   CZ06        CEFAZOLIN 06                       Y   BOTH

     CALCULATION LOGIC
     ;This calulation will print a COMMENT if antobiotic trigger is CZ06 is S and
     ;the source is URINE and the organism is ESCCOL.

     [f morg mne]="ESCCOL"^B,
     [f msp src]="URI"^C,
     "S"=[f mrx rxx](CZ06)^D,

     "Rx: Cefazolin results predict for the oral agents cefdinir,"^E,
     "cefpodoxime axetil, and cephalexin, when used for therapy of"^F,
     "uncomplicated UTIs due to E. coli."^G,

     IF{(C)&(B)&(D) 1,
     [f msproc add interp](E),
     [f msproc add interp](F),
     [f msproc add interp](G)};

CZKLEPNE          CZ06 COMMENT KLEPNE                  Y       ANTI

     LABEL  ANTIBIOTIC  ANTIBIOTIC NAME                  TRIG? WHEN
     CZ06   CZ06        CEFAZOLIN 06                       Y   BOTH

     CALCULATION LOGIC
     ;This calulation will print a COMMENT if antobiotic trigger is CZ06 is S and
     ;the source is URINE and the organism is KLEPNE.

     [f morg mne]="KLEPNE"^B,
     [f msp src]="URI"^C,
     "S"=[f mrx rxx](CZ06)^D,

     "Rx: Cefazolin results predict for the oral agents cefdinir,"^E,
     "cefpodoxime axetil, and cephalexin, when used for therapy of"^F,
```

MNEMONIC: CEPHCAS
DESCRIPTION: 3 Generation CEPH suppression cascade
TYPE: ANTI

LABEL	ANTIBIOTIC	ANTIBIOTIC NAME	TRIG?	WHEN
CAX	CAX	Ceftriaxone	Y	BOTH
CFT	CFT	Cefotaxime	Y	BOTH
CFZ	CFZ	Cefazolin	Y	BOTH
CRM	CRM	Cefuroxime	Y	BOTH

CALCULATION FORMULA

```
;If the first generation CFZ is sensitive, NP the second and third generations
;If the first is not sensitive, evaluate the second generation CRM. If this is
;sensitive, NP the third CAX or CFT. If both the 1st and 2nd are not sensitive
;report all 3 generations.
[f mrx rxx](CFZ)^R1,
[f mrx rxx](CRM)^R2,
[f mrx rxx](CAX)^R3,
[f mrx rxx](CFT)^R4,
[f msproc mne]="SN21"^B,
[f msproc mne]="SNU2"^C,
[f msproc mne]="SRN9"^D,
[f msproc mne]="SRU5"^E,
[f morg group]("ECB")^Z,
[f morg mne]="ECB"^ZZ,
((B)!(C)!(D)!(E))&('Z)&('ZZ)&(R1="S")^X,
((B)!(C)!(D)!(E))&('Z)&('ZZ)&((R1="I")&(R2="S"))^Y,
((B)!(C)!(D)!(E))&('Z)&('ZZ)&((R1="R")&(R2="S"))^Q,
IF{X [f mrx add np](CRM),[f mrx add np](CAX)![f mrx add np](CFT);
Y [f mrx add np](CAX)![f mrx add np](CFT);
Q [f mrx add np](CAX)![f mrx add np](CFT)};
```



Règles personnalisées

Créer des règles basée sur l'organisme et le type d'échantillon:

- Suppression de l'antibiotique (limite à la 1iere ligne)
- Ajout de commentaires internes pour communiquer avec les MLTs (2ieme ligne)
- Ajout de commentaires externes

Antibiogramme avec Meditech

ORGANISM NAME	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
																		CP		CRM	
ACHXYLDEN Achromobacter xylos ssp denit																		2			
ACHXYLXYL Ach Xylosoxidans ssp Xylosoxid																		1			
ACIBAUHAE Acineto baumannii/haemolyticus																		4			
ACILWO Acinetobacter lwoffii																		2			
BURCEP Burkholderia cepacia																					
CITAMA Citrobacter amalonaticus *															0	2	100	2			
CITAMAKOS Citrobacter amalonaticus/kos *															0	1	100	1			
CITBRA Citrobacter braakii *															0	3	100	3			
CITFAR Citrobacter farmeri *															0	3	100	3			
CITFRE Citrobacter freundii *															0	17	82	17			
CITKOS Citrobacter koseri *															0	1	100	1			
CITSED Citrobacter sedlakii *															0	1	100	1			
CITYOU Citrobacter youngae *															0	2	100	2			
CNS Coagulase negative Staph. sp.													4		40	5					
ENTAER Enterobacter aerogenes *															0	17	94	17			
ENTAVI Enterococcus avium																					
ENTCAS Enterococcus casseliflavus																					
ENTCLO Enterobacter cloacae *															0	57	82	57			
ENTCLOCLX Enterobacter cloacae complex															0	1	0	1			
ENTEROBASP Enterobacter species *															0	3	67	3			
ENTFAE Enterococcus faecalis.																					
ENTFAECAL Enterococcus faecalis															0	5	71	7			10
ENTFAECIUM Enterococcus faecium															0	4	100	1			
ENTGER Enterobacter gergoviae *			0	1											0	1	100	1			
ENTHOR Enterobacter hormaechei			0	2											0	2	100	2			
ESCCO Escherichia coli			66	372											76	372	80	361	100	1	
ESCCOL Escherichia coli			67	3											33	3	67	3			
ESCCOLBC E coli - confirmed ESBL			0	42											0	42	33	42			
ESCFER Escherichia fergusonii			100	1											100	1	100	1			
ESCHER Escherichia hermannii			0	1											100	1	100	1			
GRPASTR Group A Streptococcus														100	3						

CITBRA	Citrobacter l
CITFAR	Citrobacter f
CITFRE	Citrobacter f
CITKOS	Citrobacter l
CITSED	Citrobacter s
CITYOU	Citrobacter
CNS	Coagulase ne
ENTAER	Enterobacte
ENTAVI	Enterococcu
ENTCAS	Enterococcu
ENTCLO	Enterobacte
ENTCLOCLX	Enteroba
ENTEROBASP	Enterob

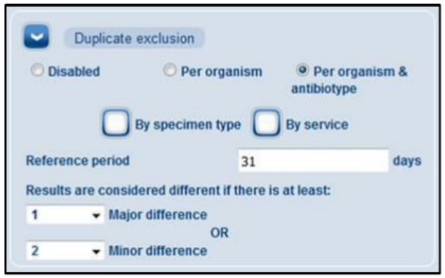
KLEOXY	Klebsiella oxytoca
KLEPNE	Klebsiella pneumoniae
KLEPNEBC	Kl pneumoniae - confirmed ESBL
KLUASC	Kluyvera ascorbata
MORMOR	Morganella morganii *
MRSA	Methicillin Resistant S Aureus
PROMIR	Proteus mirabilis
PROPEN	Proteus penneri
PRORET	Providencia rettgeri *
PROVUL	Proteus vulgaris
PSEAER	Pseudomonas aeruginosa
PSEFLUPUT	Pseudo fluorescens/putida
PSESTU	Pseudomonas stutzeri
SALENT	Salmonella Enteritidis
SALSPE	Salmonella species
SERMAR	Serratia marcescens *
SERPLY	Serratia plymuthica *
STAAUR	Staphylococcus aureus
STAAURI	Staphylococcus auricularis

ORGANISM NAME	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS	COUNT	%SUS
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		AK		AM		CAX		CAZ		CD		CD-STR		CFZ		CP	
ESCCO Escherichia coli			66	372	99	372							76	372	80	361	
ESCCOL Escherichia coli			67	3	100	3							33	3	67	3	
ESCCOLBC E coli - confirmed ESBL			0	42	0	42							0	42	33	42	
Total # of isolates														417		406	
# of S isolates													283.71		304.67		
Combined data			59.35971		89.03597								68.03597		75.04187		

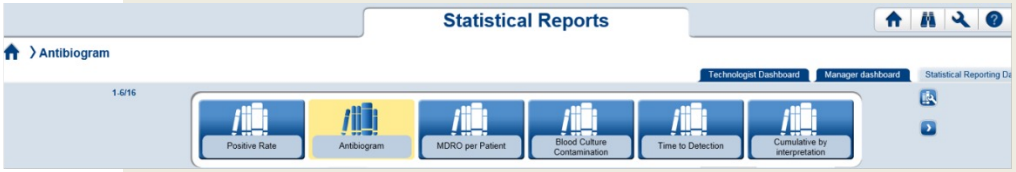
```
Organism 1                    Haemophilus influenzae
   Quantitation of growth:    +++
   Beta-lactamase:            Negative
```

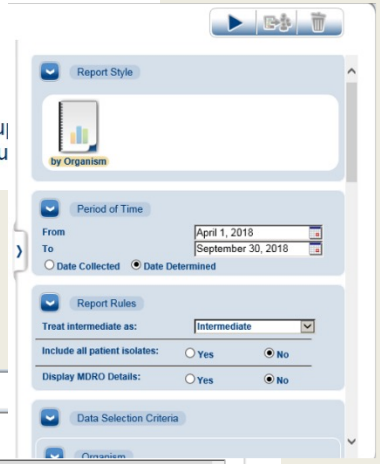
Antibiogramme avec MYLA

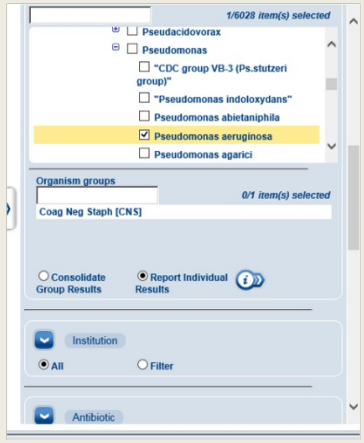
- **Disabled**—all patient isolates will be included in the report
- **Per organism**—will include only the first instance of a particular organism identification for a patient within a chosen time period, all others will be excluded
- **Per organism & antibiotype**—allows you to also consider the antibiotic profile, specimen type and service

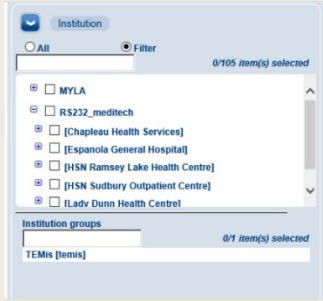


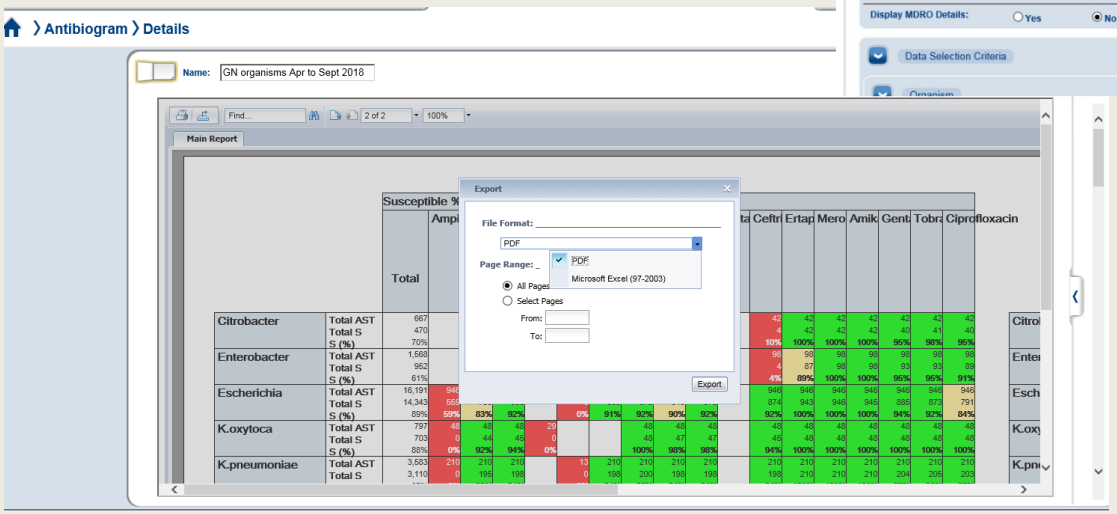
Additional information describing the Duplicate Exclusion feature is provided in the su
included with this document and in the MYLA Statistical Reporting Module User Manu
Report Criteria Definition











Antibiogramme avec MYLA

		Ampicillin	Amoxicillin/Clavulanic Acid	Piperacillin/Tazobactam	Cefazolin	Cefazolin (Non Urine)	Cefazolin (Urine)	Cefoxitin	Cefixime	Ceftazidime	Ceftriaxone	Ertapenem	Meropenem	Amikacin	Gentamicin	Tobramycin	Ciprofloxacin	Tetracycline	Nitrofurantoin	Trimethoprim/Sulfamethoxazole
Citrobacter	Total AST		42	42	37			42	42	42	42	42	42	42	42	42	42	42	42	42
	Total S		7	31	0			7	23	35	4	42	42	42	40	41	40	39	39	38
	S (%)		17%	74%	0%			17%	55%	83%	10%	100%	100%	100%	95%	98%	95%	93%	93%	90%
Enterobacter	Total AST		38	38	38			38	38	38	38	38	38	38	38	38	38	38	38	38
	Total S		0	64	0			0	33	70	4	87	38	38	33	33	83	35	43	85
	S (%)		0%	65%	0%			0%	34%	71%	4%	89%	100%	100%	95%	95%	91%	97%	44%	87%
Escherichia	Total AST	346	346	340		117	346	346	346	346	346	346	346	346	346	346	346	345	346	345
	Total S	559	786	866		0	858	875	849	875	874	943	346	345	885	873	791	749	905	764
	S (%)	59%	83%	92%		0%	91%	92%	90%	92%	92%	100%	100%	100%	94%	92%	84%	79%	96%	81%
K.oxytoca	Total AST	48	48	48	29			48	48	48	48	48	48	48	48	48	48	48	48	48
	Total S	0	44	45	0			48	47	47	45	48	48	48	48	48	48	48	43	48
	S (%)	0%	92%	94%	0%			100%	98%	98%	94%	100%	100%	100%	100%	100%	100%	100%	90%	100%
K.pneumoniae	Total AST	210	210	210		13	210	210	210	210	210	210	210	210	210	210	210	210	210	210
	Total S	0	195	198		0	198	200	198	198	198	210	210	210	204	205	203	191	38	194
	S (%)	0%	93%	94%		0%	94%	95%	94%	94%	94%	100%	100%	100%	97%	98%	97%	91%	47%	92%
Morg.morganii	Total AST	22	22	22	22			22	22	22	22	22	22	22	22	22	22	22	22	22
	Total S	0	0	19	0			12	10	17	0	21	22	22	21	22	19	1	0	15
	S (%)	0%	0%	86%	0%			55%	45%	77%	0%	95%	100%	100%	95%	100%	86%	5%	0%	68%
Proteus mirabilis	Total AST	80	80	79		16	80	80	80	80	80	80	80	80	80	80	80	80	80	80
	Total S	66	76	78		0	75	78	79	79	79	80	80	80	76	76	77	0	0	69
	S (%)	83%	95%	99%		0%	94%	98%	99%	99%	99%	100%	100%	100%	95%	95%	96%	0%	0%	86%
Proteus penneri	Total AST	1	1	1	1			1	1	1	1	1	1	1	1	1	1	1	1	1
	Total S	0	0	1	0			1	1	1	0	1	1	1	1	1	1	0	0	1
	S (%)	0%	0%	100%	0%			100%	100%	100%	0%	100%	100%	100%	100%	100%	100%	0%	0%	100%
Proteus vulgaris	Total AST	3	3	3	3			3	3	3	3	3	3	3	3	3	3	3	3	3
	Total S	0	3	3	0			3	3	3	0	3	3	3	3	3	3	0	0	3
	S (%)	0%	100%	100%	0%			100%	100%	100%	0%	100%	100%	100%	100%	100%	100%	0%	0%	100%
Ps.aeruginosa	Total AST			178	176					176			176	177	177	177	176			
	Total S			151	0					154			161	173	171	173	152			
	S (%)			85%	0%					88%			91%	98%	97%	98%	86%			

Découverte intéressante:Downtime SIL

Microbiology Laboratory Report

Patient Information

[redacted]

Gender: Male
Birth Date [redacted]

Institution: HSN Ramsey Lake Health Centre
Service:
Room: SRH4637
Physician(s):

Final Results For Specimen: 763665

Specimen Information

Lab ID: 763665

Specimen Type: Urine
Date Collected: 4/1/18 12:08 AM

Patient Result Range:
From 4/1/18 To 1/13/23

AST results

Accession ID	763665-1		
Result Comment			
Method Name	VITEK® 2 / Health Science North		
Organism Name	Klebsiella pneumoniae		
Date/Time Determined	4/2/18 8:44 PM		
Antibiotic	**Antibiotic Family**	**Value**	**Interpretation**
Ampicillin	AMINO-PENICILLINS	16.0	R
Cefazolin (Non Urine)	CEPHALOSPORINS 1	<=4.0	
Cefazolin (Urine)	CEPHALOSPORINS 1	<=4.0	S
Nitrofurantoin	FURANES	<=16.0	S
Trimethoprim/Sulfamethoxazole	TRIMETHOPRIM/ SULFONAMIDES	<=20.0	S

Phenotype: AMINO-PENICILLINS : WILD (PENICILLINASE)
Phenotype: CEPHALOSPORINS 1 : WILD (PENICILLINASE)
Phenotype: FURANES : WILD
Phenotype: TRIMETHOPRIM/SULFONAMIDES : WILD, TRIMETHOPRIM RESISTANT

AST results

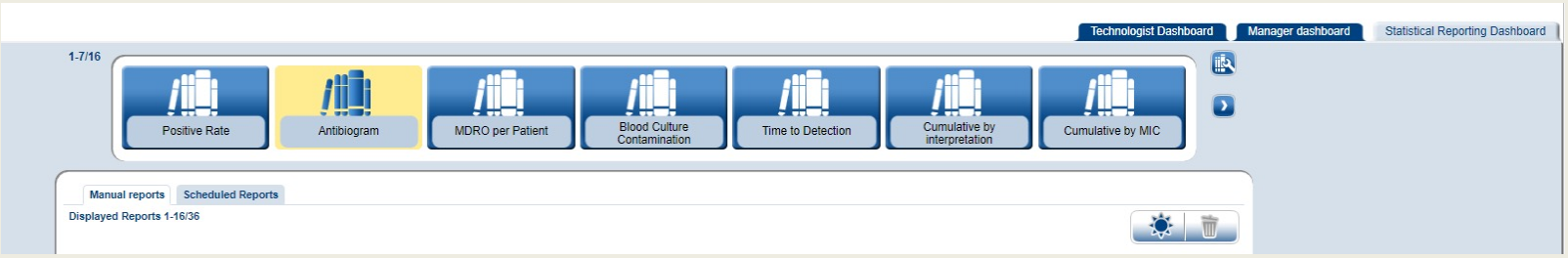
Accession ID	763665-2		
Result Comment	Doxycycline is not recommended for less than 8 years of age		
Method Name	VITEK® 2 / Health Science North		
Organism Name	Enterococcus faecalis		
Date/Time Determined	4/3/18 9:22 PM		
Antibiotic	**Antibiotic Family**	**Value**	**Interpretation**
Ampicillin	AMINO-PENICILLINS	<=2.0	S
Doxycycline	TETRACYCLINES	8.0	I
Nitrofurantoin	FURANES	<=16.0	S

Phenotype: AMINO-PENICILLINS : WILD
Phenotype: TETRACYCLINES : RESISTANT
Phenotype: FURANES : WILD

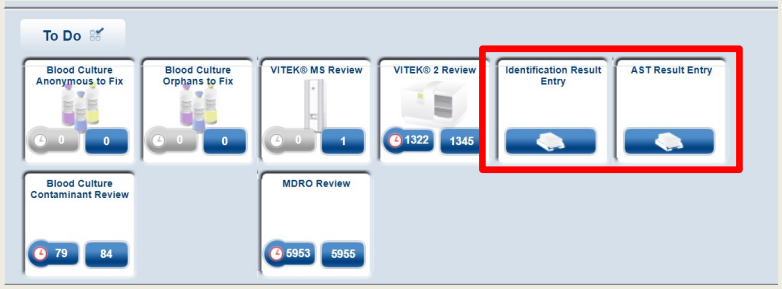
- 4 journées sans Meditech
- Utilisé Myla pour nos rapports de labo pour distribuer aux services
- Nos règles internes et externes étaient activées!
- Capable de retransmettre l’info de Myla dans Meditech

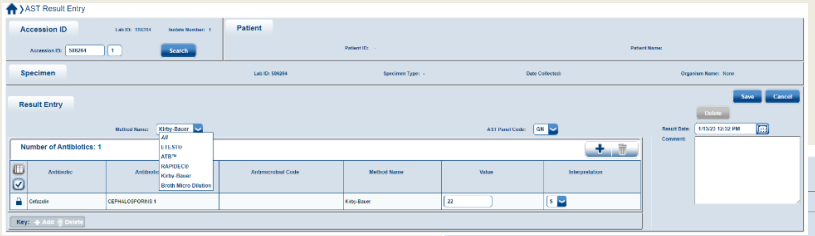
Projet en cours

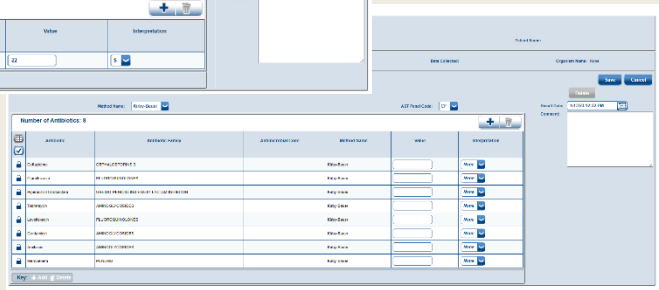
- Réunion avec les équipes ASP and IPAC pour déterminer l'information requise
  - générer des rapports planifiés



- Présenté les tendances BMR aux comité IPAC
- Entrée manuelle pour ID et AST (Meditech expanse)







Conclusion

- Myla est un outil très puissant avec une mine d'or d'informations
  - Tableaux de bord en temps réel pour les technologues et les gestionnaires
  - L’outil de rêve du microbiologiste!
    - Les règles Vitek 2 AES et bioART affluent pour que toutes les informations soient consolidées
- Une expertise minimale est requise pour ajouter/modifier des règles, des alertes et effectuer des analyses statistiques
  - Indépendant des équipes SIL et de l'informatique (gain de temps!)
- Joue un rôle essentiel pour optimiser les soins aux patients

Merci!

- Rachel Brosseau
- Carolyn Jacko
- Brandi Marshall
- Brittany Steele
- Sydney Wuorinen

Victoria Gosselin
Akinlolu Jegede
Jennifer Menard
Raija Torikka

Deanna Hall
Melanie Lefebvre
Kim Riipinen
Deborah Violette