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Prepared by QA Committee		
Issued by: Laboratory Manager	Revision Date: 9/14/2018	
Approved by Laboratory Director: Microbiologist-in-Chief	Annual Review Date: 5/1/2019	

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## Bench Duties:

See: [Microbiology Bench Duties](#)

## Bench Workflow

### *Blood Cultures Workflow*

#### 24h (NEW WORK) Dayshift:



1. Retrieve new work and fresh s/c of *E.coli* ATCC 8739 from CO2 incubator
2. Take matrix and formic acid ampoules out of fridge to warm up
3. Send isolates to PHL as required
4. Screen plates in the racks on top shelf of BC incubator labeled “*New Pos, No Maldi yet*”.  
For plates with growth, check LIS to verify which isolate number to choose for MS. If there is more than 1 type seen in Gram, ensure you pick the appropriate isolate number for MS. If you are not sure which colony pertains to which gram, put additional isolate numbers in the isolate window, as required. Note this on the plate (with a description i.e. 1 large, 2 alpha ppt) and put the isolate number on MS label. **Ensure labels match plate.** Affix label to MS worksheet. If picking more than 1 isolate from different bottles within the set, document this on the plate you took the isolate from. Also examine the “*MS Done by Evenings or Midnight shift*” rack, looking for purity and or second morph types. Do MS on any additional morph types.
5. Set up the Vitek MS on all of your isolates according to the protocol. Send slide for acquisition and run.
6. Review the Vitek MS results in MYLA according to the protocol.
7. Examine plates and document everything on line. Indicate on your work card which plate the MS was performed on.
8. Group together and identify “No Bacteria seen” with a sticky note. Put in “*BC1*” rack or “*BC2*” rack depending on your bench.
9. Set up susceptibility tests as required. Any new Staph aureus isolates must have a Denka done. Any *E.coli/Kleb/Proteus mirabilis* must have a Blacta test done. Issue preliminary results. Phone/email appropriate contacts for “reportable organisms” according to the manual.
10. Perform additional tests if needed and order the additional tests in LIS

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### **48h (OLD WORK) Dayshift**



1. Retrieve old work
2. Examine plates planted between 12 am and 7am in the rack labeled “*After Midnight.*”  
Transfer the plates that are not growing to the racks labeled *New Pos, No Maldi yet* that are on the top shelf of the BC CO2 incubator.
3. Do Vitek MS preps on any plates that have a “film” of growth and then reincubate in rack labeled B1 or B2 (whatever bench you are on) until later. (The Vitek MS slide can be used for any other isolates from the 48 hr work and shared with the 24hr bench)
4. Take out 3 fresh pre-inoculated plates of Ecoli 8739 and the OX/Vanc QC plates from the fridge. Put date on them. Incubate the Ecoli 8739 plates in the blood culture sensi incubator and the Ox/Vanc plates in the main lab sensi incubator.
5. Send isolates to PHL as required
6. Open anaerobic jars and record results on line
7. Scan all plates checking for any new morphotypes and ensuring anaerobic growth matches aerobic growth. Process any possible anaerobes with an MS prep where possible.  
Otherwise, make purity plate(s) and work up later. Place any anaerobic plates that you are working on in the holding jar
8. Send slide to MS for processing
9. Meanwhile document 48hr results. Check for Enterococcus faecium susceptible Vanc results. These isolates will need a Cepheid PCR done to rule out Vanc S van A or van B.
10. Review MS results in Myla according to the protocol
11. Perform sensitivity and additional tests if needed
12. Prelim the result
13. Set up the Vitek sensitivity and KB/E-test
14. At 13:00 go through the *New Pos, No Maldi yet* rack plates
15. Put matching sets in order and group multiples on the same patient together. You can use the Blood Culture Positive Daylist as an aid to sorting plates. Double-check Blood Culture Positive Daylist that you have accounted for all yeasts.
16. For plates with growth, check LIS to verify which isolate number to choose for MS. If there is more than 1 type seen in Gram, ensure you pick the appropriate isolate for MS. If you are not sure which colony pertains to which gram, put additional isolate numbers in the isolate window, as required. Screen plates and do MS prep on each morphotype.  
Ensure labels match plate. If picking more than 1 isolate from different bottles within the

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set, document this on the plate you took the isolate from. Set up Vitek MS test, and review results in Myla when available.

17. Note: NLF Ecoli must be confirmed by Oxoid Shigella Latex Agglutination.
18. Any new Staph aureus isolates will need a Denka test performed.
19. Perform sensitivity and additional test (alternate ID tests) if needed
20. Prelim the result
21. Set up the Vitek sensitivity and KB/E-test

## Evening and Midnight MS Blood Culture Bench Protocol



### Evening Shift

1. Technologist 1 – “Bacteriology” : At 16:00 retrieve any ***New Pos, no Maldi yet*** plates. For plates with growth, check LIS to verify which isolate number to choose for MS. If there is more than 1 type seen in Gram, ensure you pick the appropriate isolate for MS. If you are not sure which colony pertains to which gram, put additional isolate numbers in the isolate window, as required. Screen plates and do MS prep on each morphotype. *Ensure labels match plate.* If picking more than 1 isolate from different bottles within the set, document this on the plate you took the isolate from. Set up Vitek MS test, and review results in Myla when available.
2. Release and verify identification result’s in the LIS. Phone results as per protocol. Place plates with successful identification in the “***MS Done by Evenings or Midnight shift***” rack and those without successful identification back in ***New Pos, no Maldi yet*** rack.
3. Technologist 3- “Extra” : At ~20:00 retrieve any ***New Pos, no Maldi yet*** plates. See step 1 above. Set up MS on any plates showing growth. Review identification results in Myla. Release and verify identification result’s in the LIS. Phone results as per protocol. All plates which have successful identification performed should be placed in “***MS Done by Evenings or Midnight shift***” rack along with the plates identified at 16:00 and those without successful identification back in ***New Pos, no Maldi yet*** rack.

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**Midnight shift:**

1. Once throughout the night, retrieve any ***New Pos, no Maldi yet*** plates. For plates with growth, check LIS to verify which isolate number to choose for MS. If there is more than 1 type seen in Gram, ensure you pick the appropriate isolate for MS. If you are not sure which colony pertains to which gram, put additional isolate numbers in the isolate window, as required. Screen plates and do MS prep on each morphotype. *Ensure labels match plate.* If picking more than 1 isolate from different bottles within the set, document this on the plate you took the isolate from. Set up Vitek MS test, and review results in Myla when available.
2. Release and verify identification result's in the LIS. Phone results as per protocol. All plates which have successful identification performed should be placed in "***MS Done by Evenings or Midnight shift***" rack paltes successfully identified in the evening and those without successful identification back in ***New Pos, no Maldi yet*** rack.

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### ***MRSA/ESBL-Old Bench Workflow***

1. Get MRSA buckets out of incubator in planting, cover and put empty buckets in corresponding spots in the incubator for new days planting
2. Screen all the MRSA plates
3. Pick out the plates with blue colonies, check for Prev Pos MRSA in LIS
4. Put Prev Pos MRSA plates aside for pastorex later
5. For new MRSA's order Vitek MS in LIS, enter in isolate window, print MS label and subculture to BA pp if needed
6. Quickly scan CRE Mero plates, any I or R Mero will need an MS ID, set up now
7. Set up Vitek MS test
8. Do pastorex on any Prev Pos MRSA's and send out results
9. Review Vitek MS result according to the protocol
10. Perform Denka test
11. Send prelim result, phone/email ICP as per manual
12. Finish up MRSA old work
13. Send out Negative MRSA on 8am-11am bucket
14. Set up required susceptibilities
15. Finish ESBL old work: read and record ESBL KB, Mero disc, phone/email ICP as per manual, set up any Rosco discs
16. Send out Negative MRSA results on later bucket (11am - 3pm)
17. Check any SUBBA from the morning and set up susceptibilities if there is sufficient growth

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## ***VRE/ESBL-New Bench Workflow***

### **C. difficile:**

1. Go to LIS work list “1CLDS C. diff Toxin – POS” periodically to watch for new positive results.
2. Result all “Indeterminate” and “Positive” as isolates as per Molecular Manual. All negatives are auto-resulted.
3. Notify ward/ICP/Research as per [Isolate Notification and Freezing Table QPCMI16003](#)
4. “Error” and “Invalid” results will appear on the “1CLDS C. diff Toxin – POS” worklist. Inform the Planting Bench to repeat as per [Molecular Diagnostic Test Manual](#).

### **New VRE work:**

1. Get new bucket of 24 h VRE plates from planting incubator and put a new empty bucket in the planting incubator for new day cultures
2. Screen all the VRE 24h and 48h plates
3. Pick out the plates with purple colonies or blue colonies
4. Blue colonies: Place under blanket in rack to be worked up later
5. Purple colonies <5 colonies, place under blanket in rack to be worked up later
6. Purple colonies >5, check history. If previous, place under blanket in rack to be worked up later. If new, order VRE PCR and SBVRE and MS in the LIS
7. Print the labels
8. Set up VRE PCR in Cepheid, also sub to SBVRE plate
9. Order Vitek MS if highly suspicious of VRE

### **Old VRE work:**

1. Screen SBVRE plates; pick out any plate which has heavy growth of purple or blue colonies. Check history. Order VRE PCR and SBVRE and MS in the LIS if new. If previous, result later.



### **New ESBL work:**

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1. Screen the new ESBL plates, separate the plates according to the growth eg: NG, Oxidase positive NLF, Oxidase negative NLF, and LF (done by PFGE bench Monday to Friday)
2. Order Vitek MS, ESBL KB and Isolate in the LIS for the positive culture
3. Print labels

#### **New CRE work:**

1. CRE – Mero only (order KB Mems to get correct zone sizes for screening)

#### **MS Set-up:**

1. Set up Vitek MS test on VRE and ESBL plate according to the protocol
2. Review the Vitek MS result

#### **ESBL sensi set up according to MS ID**

1. LF and NLF Ecoli, Kleb, Proteus: do KB ESBL including Mero Screen Disk as required
2. Other Enterobacteriaceae: do MEMS only
3. Not: Enterobacteriaceae i.e. Acinetobacter etc result as negative
4. No ID: repeat MS or do GN and MEMS

#### **Reporting and completion of work**

1. Report VRE PCR result in LIS if there is one
2. Finish VRE old work: read and record SBVRE and e-test results
3. Send out VRE 24h and 48h culture result in the LIS
4. Subculture purple colonies <5 to SBVRE and SUBBA and blue colonies to SBVRE plate
5. Set up vano/teico etest and vanco screen test as needed
6. Check previous history
7. Order and set ESBL KB, Mero Screen disc according to MS result, any GNI cards as needed

#### **VRE PCR Screens**

1. Go to LIS worklist “ICVPC - IC VRE PCR” to result positive and negative reports.



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2. For positives, notify ward/ICP/Research as per:

3. [3. Isolate Notification and Freezing Table QPCMI16003](#) For positives, set up culture in BHI as per [Specimen Processing Procedure](#)

4. For “Error” and “Invalid” results, inform the Planting Bench to repeat as per [VRE PCR Procedure](#)

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### ***Miscellaneous Bench Workflow***

The Miscellaneous Bench has 3 technologists. First thing every weekday morning each tech will perform one of the following 3 sets of duties:

1. Process Vitek 2
2. Process the 48 hour miscellaneous anaerobic jars
3. Retrieve new work racks from CO2 inc. in planting area. (sterile fluids, sterile sites and miscellaneous) and put on appropriate benches.

Weekday duties include: label Ox/Vanc screen plates

Prepare screen 0.5 McFarland ATCC stds



Read and record the 24 hr Ox/Vanc screens in afternoon

Weekend duties (in addition to weekday duties): read Ox/Vanc screen plates

When these duties are completed, start your Bench work:

1. Read remaining Gram stains from the previous day
2. Process\* New Sterile Fluids identifying any growth using Maldi (any MS id's will be put with BC bench's first run)
3. Process\* Sterile specimens using Maldi to identify any significant growth
4. Process\* Miscellaneous specimens, use Maldi to identify any significant growth and use ancillary tests for non-pathogens, i.e. Pastorex, BE (this will be faster than waiting for a Maldi result)
5. Process\* 48 hour work
6. If there is no acceptable ID by Maldi after refire, use alternate ID methods i.e. GNI, GPI, NFT etc. Review results from MYLA and transfer when done.
7. Use Prolex for identifying B-streps, it is faster and sometimes more reliable than Maldi
8. Read STAT grams throughout the day and answer the phone as needed

\*Process includes reading plates and broths, doing any gram stains needed, identifying and reporting significant isolates, setting up appropriate susceptibility tests, reporting anaerobic results, recording broth results and subbing as needed, phoning any results as required

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## ***Respiratory Bench Workflow***

### New Work

1. Read any leftover grams from previous night
2. Sort quickly through the plates to find any BAL, bronchial washings or brushings and deal with those first. All sputums that look like oral flora but need a bile solubility can be put in one pile, with bile added, to be read and reported later. Any sputums with pathogens to be worked on can have labels called for MS. Process all significant isolates on positive respiratory specimens, using MS. Do all yeast isolates on MS to rule out *Cryptococcus neoformans*.
3. In MYLA, review MS ID's when ready. If there are any that don't have ID's, re-fire before removing the slide from MS. For any isolates that do not ID even after re-firing, check for purity and set up ID/sens on vitek.
4. Examine plates in the throat jar. Use Prolex Strep Grouping Kit for any beta colonies.
5. Check worklist at the end of the day to be sure there are no outstanding orders.

### Old Work



1. Examine 48 hour plates, checking for any pathogens that may have been missed at 24 hours. Work up as above.

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### *Enteric/Gyne Bench Workflow*

1. Screen all **new** enteric plates, set up MS as per [Enteric Manual](#) Table 1.
2. Subculture Selenite broths.
3. Screen the Gyne plates, including seminal fluids. Set up any possible pathogens on the MS slide. Put your slide on the Maldi at your assigned time slot i.e. after Infection Control is finished.
4. Screen the plates for Group B Strep. Use the Bile aesculin plate to rule out enterococci.
5. Use the Prolex Strep grouping kit for any BE – streps and orange CAROT broths. MS may be used on colonies if your slide has not been put on the Maldi yet, but don't wait for the GBS (on a busy day the delay may mean you will miss your assigned time slot with the Maldi).
6. Review your Maldi results and transfer acceptable ones. [Refer Enteric Manual](#) Table 2 for further work up.
7. Sub negative. Carrot broths.
8. Review worklists and check for any outstanding orders.

\* The Enteric/Gyne bench and Respiratory Bench should share a slide for Maldi whenever possible.

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## *Urine Bench Workflow*

### **Workflow for New Urine Media (CPS4)**

Note: the CPS4 bi-plates have 2 media codes. CPS4 for the chromagar side and CNAUR for the CNA side.

Vitek MS will be done on all isolates except yeast.

It is not necessary to enter the isolate number or status in the LIS before running the Maldi as the identifications will download automatically. Vitek sensitivities can be loaded before the Vitek MS identifications are done.

Note: If you choose to inoculate Vitek saline tube at the time you do the MS spot remember that the Vitek cards should be inoculated and entered in the Vitek within 15 minutes.

1.Sort plates into categories:

negative:no growth, no significant growth and mixed growth

positive: Burgundy/pink (E.coli), Blue/green/Brown (gnb ID), Enterococci, Staph, GBS and Gram.

2.Gram or wet prep to confirm yeasts. Set aside to enter after Vitek MS.

3.E.coli identifications are based solely on the burgundy pink colour on chromagar.

4.Do Vitek MS on all blue/green/brown colonies on the chromagar side.

5.Do Vitek MS on Enterococci, Staph, GBS and pinpoint colonies on the CNA side.

6.Using batch entry, mark LIS orders for Gram negative bacilli (not pink E.coli). Enter result for “GPS4” media eg., “>100 blue-green-brown `MS` astn213 `PP`”. Print GPS4 media labels and set up Vitek MS.

7.Using batch entry, mark LIS orders for enterococcus. Enter result for “CNAUR” media eg., “10-100 Entero `MS` astgp67 `PP` ^VANCS”. Print media labels and set up Vitek MS.


8.Using batch entry, mark LIS orders for Staphylococcus, Group B Streptococcus and alpha haemolytic colonies. Print media labels and set up Vitek MS if needed.

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9. The infection control, miscellaneous, respiratory and enteric benches have priority for Vitek MS use. Use the Vitek MS only when available.
10. Using batch entry, mark LIS orders for burgundy pink E.coli. Enter result for “GPS4” media eg., “>100 burgandy-pink astn213 `PP` ^esccol;;\>100”. Print GPS4 media labels and set up Vitek MS. Remember to enter “ESCCOL” (see barcode) at the urine smart carrier station. The identification and colony count be automatically entered once the cursor is moved the media field. Verify and status the result.
11. Review the maldi results and refire as needed.
12. If there is no Vitek MS identification, set up alternate testing..

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### *QC Sterility Bench Workflow*



1. Record temperatures of 37C and 56C heat blocks. Record temperatures of the 3 Attest incubators. Document in the QC section of the mic's Attest work list.
2. Read and document Vancomycin, Oxacillin, and Quad screens.
3. Retrieve Q.C. plates, 7 day, 14 day and overnight sterility tubes from walk in incubator. Retrieve applicable plates from CO2 incubator.
4. Record the Attest results. (kept 2 days) Finalize "Test spores No growth" for negatives. Call all positives to the sending institution. Retain all finalized Attest in the 2 Styrofoam containers found on the bench.
5. Read and document results of sterility tubes in the 7 Day, and 14 Day work list. Gram and sub (Bruc and Choc) cloudy broths. Phone results to sending institution. Ensure you read the fresh bone specimens at 8 am and 3 pm.
6. Read and document results of all broths subcultured previously. Freeze all bone bank isolates.
7. Read and document results of Q.C. testing. Document in micqc, Tasks, result entry, F2 to scroll through the list and enter under Q.C. bench.
8. Go to walk in fridge and retrieve any media, reagents, kits, or panels that need to be Q.C.'d. They will be found on tray on right hand side of fridge.
  - a. Register the items for Q.C. under micqc, Registration, pick the appropriate category, A (for add), F2, select appropriate media type, record lot # (if lot has been previously tested, add A as a suffix for the lot #), and enter expiration date. F12. The appropriate Q.C. organisms will be listed on the screen.
  - b. To print labels for testing, go to the receiving work list "QC Media". Using the Media QC template, wand the barcodes for the appropriate media (i.e. for Campy plates there will be 2 to mark, for Ent. Vanc there will be 4 to mark) **F7 R**. Choose a label printer. One label is for the inoculum tube, one is for the purity plate and one is for the actual media you are testing.
  - c. Make a 0.5 McFarland for each organism. (For N.gonorrhoeae, H.influenzae, and Campylobacter you must further dilute. Transfer 300 microlitres of the 0.5 McFarland broth into an other 0.45 % saline tube.)
  - d. Inoculate the organisms to the appropriate media. Incubate at the appropriate temperature and atmosphere. For each media you should have 2 extra items for each type to be used to check the sterility. Mark one 37 and one Room Temperature and date them. Incubate them accordingly and monitor them for 2 days.
9. Subculture QC stock culture organism according to the schedule. There are pre-printed labels for all weekly subs in the blue folder labeled "QC Labels". Alternately, you can print labels from the receiving work list as required.

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10. Make sure you do all the scheduled duties according to the Vitek work list. Go to micqc. Tasks, result entry, F2 to scroll through the list until you get to Vitek QC.
11. There are monthly duties that need to be fulfilled as well. These include Colourimeter checks, S/C of freezer stock organisms and Salmonella/Shigella antisera.



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Gram Stains

## Monday to Friday

### Day Shift

#### Early morning:

Leftover gram smears form the previous day:

Divide smear equally to the following 6 benches:

M1

M2

M3

Urine 1 or 2

Resp

Gyne/Enterics

All the above smears are to be read before 10 a.m.

#### Rest of the Day

- STATS – Shared by M1, M2, M3 according to the STAT smears recording sheet
- Wet Preps – Gyne/Enteric throughout the day
- Other Grams – equally divided between M1, M2, M3, Resp, Urine 1 or 2



### Evening Shifts:

All smears from 3:30 onward

- Bacteriology evening technologist,
- Serology technologist to help

### Night Shifts:

Read remaining smears if time permits

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*Vitek MS Bench Schedule*



	Blood Culture	MRSA	VRE/ESBL	Misc.	Resp	Enterics/Gyn	QC/Steriity	Urine
8:00								
9:00	MS2	MS1	MS1	MS2 (sterile fluid)				
10:00	Sensi set up/read				MS1	MS1	MS1	
11:00				MS2 (sterile site) set up before 11:00				MS1
12:00				MS2/or MS1 (non-sterile)				
13:00	MS2							
14:00	Sensi set up/read	MS2		MS1	MS1			
15:00								
16:00								
17:00								
18:00								
19:00		MS2						
20:00	MS2							
21:00								
22:00								
23:00								
0:00				MS2 (sterile)				
1:00								
2:00								
3:00	MS2							
4:00								
5:00								
6:00								
7:00								

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## Planting Workflow

## Serology Workflow



Technician 1 - Day	Technician 2 - Day	Technician 3 - Evening	Technician 4 - Night
<b>Morning 08:00am - 12:00pm)</b>	<b>Morning 08:00am - 12:00pm)</b>	Process samples in order or priority: <ul style="list-style-type: none"> <li>• Process HBV and HCV samples first</li> <li>• Process STAT samples (needle stick, etc.) as they arrive</li> <li>• Process routine serology samples</li> <li>• Clean up bench and discard garbage</li> <li>• Send outs (dry ice send out every Thursday)</li> </ul>	See <a href="#">Technician's Night Shift Workflow</a>
<ul style="list-style-type: none"> <li>• Clean up work bench</li> <li>• Prepare Hood</li> <li>• Enter hood QC in LIS</li> <li>• Process Donor Samples</li> <li>• Process HBV and HCV samples</li> </ul>	<ul style="list-style-type: none"> <li>• Send out HBV and HCV sample including TW Liver clinic specimens</li> <li>• Send out other samples for PHL</li> <li>• Process STAT Samples (needle stick, etc.)</li> <li>• Process any CMV Avidity samples left over from previous day</li> </ul>		
<b>Afternoon (12:00-4:00)</b>	<b>Afternoon (12:00-4:00)</b>		
<ul style="list-style-type: none"> <li>• Process HBV and HCV samples</li> <li>• Process routine serology samples</li> <li>• Discard garbage</li> <li>• Help Tech2 process CMV avidity samples</li> </ul>	<ul style="list-style-type: none"> <li>• HIV Viral Load</li> <li>• Process CMV Avidity Samples</li> </ul>		

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### *Wash-up Workflow*



<b>Wash up Bench Workflow</b>			
Duties to be done by the technician assigned to Inventory & Wash up Bench			
<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday &amp; Friday</b> *If no Inventory person scheduled, assign duties.
Take Inventory (Media/Reagents/Consumables/ Antibiotics KB + Etests)	Wash-up	Wash-up	Wash-up
Autoclave 1-2 batches	Autoclave 1-2 batches	Autoclave 1-2 batches	Autoclave 1-2 batches
Bring empty alcohol cans to 6 <sup>th</sup> floor to be refilled.	Pick up refilled alcohol cans from 6th floor	Clean 4 Blood Culture Area Incubators	Clean Planting Area Incubators
Clean mycology incubators	Receive media Document in inventory spreadsheet using packing slips	Receive media Document in inventory spreadsheet using packing slips	Record DH2O nanopure and CO2 incubators reading daily
Record DH2O nanopure and CO2 incubators reading daily	Clean 6 incubators in technologist area (Wednesday if busy)	Record Fyrite test for CO2 Incubator (Weekly)	Receive and put away supplies/ shipments throughout the day

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Receive and put away supplies/ shipments throughout the day	Make up 70% Alcohol & Alcohol/Acetone	Record DH2O nanopure and CO2 incubators reading daily	
Restock and reorganize the shelves	Record DH2O nanopure and CO2 incubators reading daily	Receive and put away supplies/ shipments throughout the day	
	Receive and put away supplies/ shipments throughout the day		
	*If long weekend Take Inventory (Media/Reagents/Consumables/ Antibiotics KB + Etests)		
	*If Long weekend Clean mycology		

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***Window Bench: C. difficile Toxin PCR Workflow***

1. All specimens are considered STAT. Accession and process as soon as specimens arrive. DO NOT batch.
2. All specimens to be set up are listed in the LIS Worklist “1CLDT C. diff Toxin – New”
3. See [Molecular Diagnostic Test Manual](#) for set up instructions.
4. After cartridge is set up and loaded into Xpert, Use one of the **Blue** laminated cards and write the expected completion time (45 minutes after loading).
5. Pass the card to the VRE Bench on day shifts and to the evening Serology Technologist on evenings, nights and weekends.
6. Repeat “Error” and “Invalid” tests as per [Molecular Diagnostic Test Manual](#) as notified by technologist on VRE Bench. This must be done IMMEDIATELY.
7. Freeze all Positive and Indeterminate specimens as per LIS Work list “1CLDF C. diff Toxin – FRZ” at 9 am and 3 pm each day.

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***Window Bench: VRE PCR Direct from Specimen Workflow***

1. VRE PCR arrives in batches usually in the morning with notification by ICP.
2. All specimens to be set up after the first batch of C. diff in the morning. as listed in LIS Worklist “ICVPC - IC VRE PCR”
3. See [VRE PCR Procedure](#) for set up instructions.
4. After cartridge is set up and loaded into Xpert, Use one of the **Pink** laminated cards and write the expected completion time (45 minutes after loading).
5. Pass the card to the VRE Bench.
  
6. Repeat “Error” and “Invalid” tests as per [VRE PCR Procedure](#) as notified by technologist on VRE Bench. This must be done IMMEDIATELY.

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## Technician Midnight Shift Workflow

### Technician's Night Shift Workflow 11:00pm-7:00am

1. Bacti Send out:
  - TB (T04),
  - Legionella (B05), Urogenital Mycoplasma (B09), Mycoplasma pneumoniae (B07).
2. Parasitology Send out:
  - Stool O&P (P04), other body fluids/tissue (Acanthamoeba) for O&P (P03).
  - Accessioning the stools for O&P and other stools if it is not done from other shifts.
3. Fungal Send out (M03).
4. Chlamydia trachomatis (V03).
5. Whooping cough (Bordetella pertussis) (B10).
6. International send out:
  - Ann Lemont Mira Vista Diagnostics/USA: Histoplasma Ag & Blastomyces...
  - Steve Keas, Clinical Lab/ National Hansen's Disease Programs/USA: Slit Skin Smears for Leprosy.
  - CDC – for
7. Serology Send out:
  - Prenatal (MSH&UHN)
  - MIREF
  - Other sends out (H. pylori, HIV and ...)
  - Accessioning of other in-house serology if there is any left over from other shifts.
8. Receiving two deliveries at 1:30 am and 4:00 am:
  - Sorting the specimens.
  - Accessioning and loading the BC bottles.
  - Unloading negative BC bottles.
  - Processing all sterile fluids.



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- Accessioning other specimens (urines, respiratory, Misc. & swabs) if there is extra time.
- 9. Check the Outstanding lists for send out samples.
- 10. Important check the outside Fridge and incubator for specimens (especially the stat specimens & BC).
- 11. Clean the gram stainer & fill up the stains.
- 12. Clean Isoplators / WASPS
- 13. Prepare the QC plates for Isoplators and Hoods.
- 14. Write any notes & questions in the communications book.

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### Technician Night Shift Daily Check List:



	Tasks	Initial when done
1.	Bacti Send out: <ul style="list-style-type: none"> <li>- TB (T04),</li> <li>- Legionella (B05),</li> <li>- Urogenital</li> <li>- Mycoplasma (B09),</li> <li>- Mycoplasma pneumoniae (B07).</li> </ul>	
2.	Parasitology Send out: <ul style="list-style-type: none"> <li>- Stool O&amp;P (P04), other body fluids/tissue (Acanthamoeba) for O&amp;P (P03).</li> <li>- Accessioning the stools for O&amp;P and other stools if it is not done from other shifts.</li> </ul>	
3.	Fungal Send out (M03).	
4.	Chlamydia trachomatis (V03).	
5.	Whooping cough (Bordetella pertussis) (B10)	
6.	International send out: <ul style="list-style-type: none"> <li>- Ann Lemont Mira Vista Diagnostics/USA: Histoplasma Ag &amp; Blastomyces...</li> <li>- Steve Keas, Clinical Lab/ National Hansen's Disease Programs/USA: Slit Skin Smears for Leprosy.</li> <li>- CDC – for</li> </ul>	
7.	Serology Send out: <ul style="list-style-type: none"> <li>- Prenatal (MSH&amp;UHN)</li> <li>- MIREF</li> <li>- Other sends out (H. pylori, HIV and ...)</li> <li>- Accessioning of other in-house serology if there is any left over from other shifts.</li> </ul>	
8.	Receiving two deliveries at 1:30 am and 4:00 am: <ul style="list-style-type: none"> <li>- Sorting the specimens.</li> <li>- Accessioning and loading the BC bottles.</li> <li>- Unloading negative BC bottles.</li> <li>- Processing all sterile fluids.</li> <li>- Accessioning other specimens (urines, respiratory, Misc. &amp; swabs) if there is extra time.</li> </ul>	

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	<b>Tasks</b>	<b>Initial when done</b>
9.	Check the Outstanding lists for send outs	
10.	Important check the outside Fridge and incubator for specimens (especially the stat specimens & BC).	
11.	Clean the gram stainer & fill up the stains.	
12.	Clean Isoplators / WASP	
13.	Prepare the QC plates for Isoplators and Hoods.	
14.	Write any notes & questions in the communications book.	

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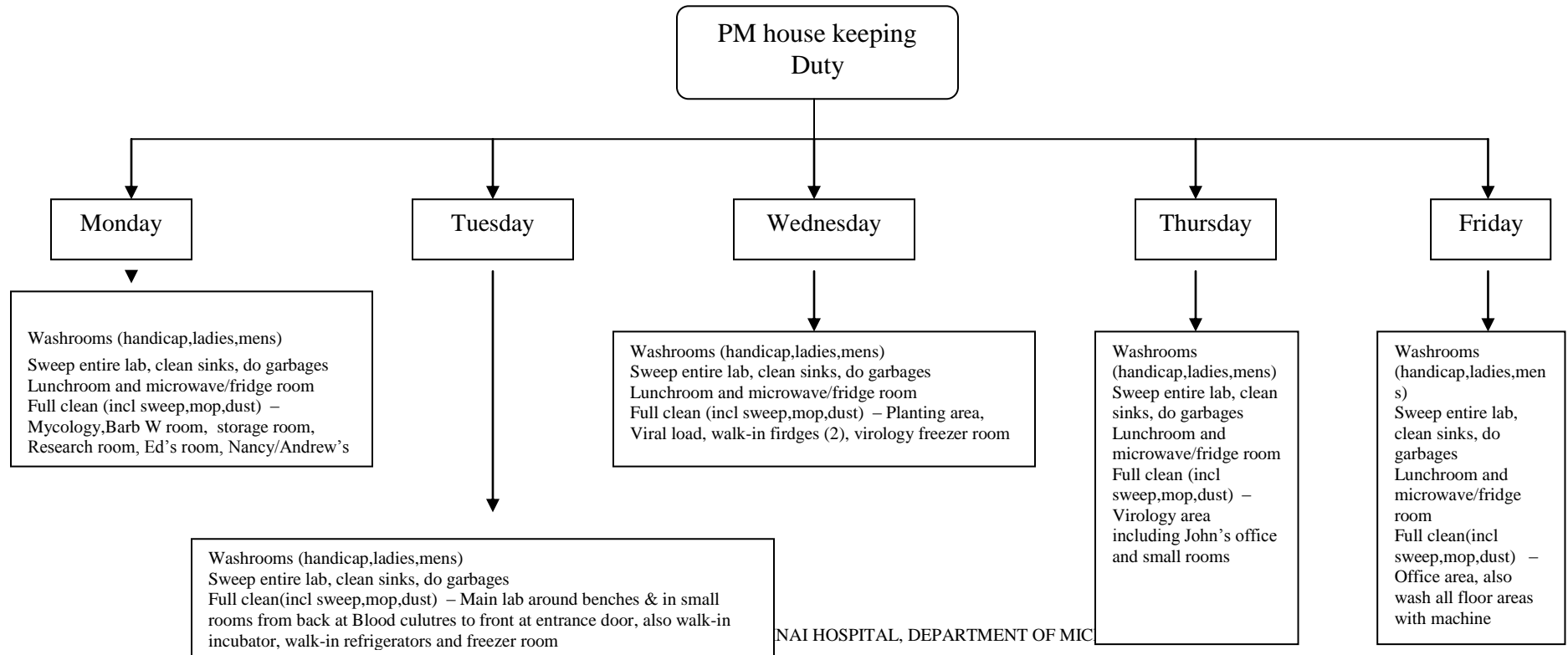
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## House Keeping Duty Schedule





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Safety Precautions -Standard precaution should be follow.

See

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**Record of Edited Revisions**


**Manual Section Name: Bench Workflow**

Page Number / Item	Date of Revision	Signature of Approval
Updated workflow	November 04, 2013	Dr. T. Mazzulli
Updated Evening and Night shift duties	February 20, 2014	Dr. T. Mazzulli
Added link to Planting Bench Workflow	February 20, 2014	Dr. T. Mazzulli
Added C. diff and VRE PCR workflow	May 07, 2014	Dr. T. Mazzulli
Technician night duties revised	July 09, 2014	Dr. T. Mazzulli
Blood culture day shift workflow, delete TDNA and bile aesculin plate	August 13, 2014	Dr. T. Mazzulli
Add: MS2 (sterile fluid), set up before 11:00, MS2/or MS1 (non-sterile) at 12:00 N	October 25, 2014	Dr. T. Mazzulli
Flu season Bench duties revised	November 06, 2014	Dr. T. Mazzulli
House Keeping Duty Schedule	November 14, 2014	Dr. T. Mazzulli
Evening Flu Season Technician Duties	January 22, 2015	Dr. T. Mazzulli
New urine chrom media (CPS4) workflow Addition of QC Sterility workflow Technician washup workflow link Moved "Duties" Into Technologist/Technician duties manual Annual Review	February 24, 2015	Dr. T. Mazzulli
p.2 Technologist BC (new work) added: #9 Group together & identify "No Bacteria seen" with sticky note. p.17 Added Technician Serology Workflow Policy:MI\VTMS\ to MI\WF	May 1, 2015	Dr. T. Mazzulli
Added to each shift of BC bench workflow: "For plates with growth, check LIS to verify which isolate number to choose for MS. If there is more than 1 type seen in Gram, ensure you pick the appropriate isolate number for MS. If you are not sure which colony pertains to which gram, put additional isolate numbers in the isolate window, as required. Note this on the plate (with a description i.e. 1 large, 2 alpha ppt) and put the	November 2, 2015	Dr. T. Mazzulli

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isolate number on MS label” -Fixed BC rack names		
-Updated QC bench workflow	November 12, 2015	Dr. T. Mazzulli
Annual Review	February 24, 2016	Dr. T. Mazzulli
Annual Review	February 24, 2017	Dr. T. Mazzulli
Annual Review	February 24, 2018	Dr. T. Mazzulli
Updated IC with WASPLab workflow		
Minor formatting changes	September 14, 2018	Dr. T. Mazzulli

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