MEDIA QUALITY CONTROL

☒ St. Joseph Medical Center, Tacoma, WA	☒ St. Anthony Hospital Gig Harbor, WA	☐ Harrison Medical Center, Bremerton, WA
☒ St. Francis Hospital, Federal Way, WA	☒ St. Elizabeth Hospital Enumclaw, WA	☐ Harrison Medical Center, Silverdale, WA
☒ St. Clare Hospital Lakewood, WA	☒ Highline Medical Center Burien, WA	☐ PSC

PURPOSE

Media is purchased from the BD or Remel. The manufacturer checks and documents that each lot has been tested for sterility, ability to support growth of appropriate organisms and biochemical reactivity. The BD or Remel manual describes the quality control measures taken for each type of media used. Some media must be checked for the proper growth of organisms with each new lot or shipment.

STEPS

1. When media arrives into the laboratory, it is accompanied by a packing list indicating the quantity ordered, if shipped or back-ordered, catalog number, description of product, lot number and expiration date. On the packing list is a statement that QC conforms to CLSI standards and has been performed by Remel or BD and has passed requirements. All media must be inspected by the tech before storing at 2-8°C.

2. The following checks are to be made:

   - Remove media from outer packages/boxes. Look at several plates per lot to look for defects, damage or contamination. All boxes or packages of media must be labeled with contents, lot number, expiration date, date received and storage requirements.
   - Defects that may have occurred in shipping such as broken petri dishes, frozen, overheated or media that has shrunken from the sides of the dish and excessive condensation.
   - General appearance such as color change, smoothness, proper depth (3mm) moistness, hemolysis of blood plates, excessive bubbles or precipitates.
   - Expiration date, don't use any media past this date.
   - Contamination, careful inspection of contamination should take place before inoculation of patient specimens. Report any contamination to manager.

3. If all media passes inspection, stamp the packing slip, initial, and date packing list and that the media is acceptable for use. If all initial inspections have passed the media is ready to use unless QC is required. If QC is required, media must be sequestered and pass quality control before placing into service.

4. If media does NOT pass inspection and any defects are revealed, immediately mark the media as **DO NOT USE**. Call BD or Remel and give the following information:

   a. Name and lot number of the product

   b. Date the media was received

   c. Description of the problem

d. Ask to have the product replaced if possible

e. Document the problem with the media, who and when you called BD or Remel and what the solution is.

5. All media packing slips will be kept in the Media QC drawer in micro or appropriate site at facility.

QUALITY CONTROL OF MEDIA

CAP requires that certain types of media be QC'd upon receipt into the laboratory regardless of the manufacturer's quality control. Plates that require QC are listed below. SJMC lab will receive a representative of each plate to be QC'd from SCH, SFH, SAH, SEH and HCH labs to be performed along with SJMC media. A representative of each media will be submitted for quality control for every shipment of media received. All facilities will QC Chocolate plates, SJMC will QC all other media. Stock culture organisms will be used for testing.

MEDIA	INCUBATION	ORGANISMS	GROWTH
Chocolate	35°C CO2(24-48 hr)	N. gonorrhoeae ATCC 43069	yes
		Hemoph. influenzae ATCC 10211	yes
Martin-Lewis	35°C CO2(24-48 hr)	N. gonorrhoeae ATCC 43069	yes
		Staph epidermidis ATCC 12228	no growth or inhibited
		C. albicans ATCC 10231	No growth or inhibited
Campylobacter	35°C (Campy pouch)	Campy. Jejuni ATCC33291	yes
		E. coli ATCC 25922	no growth or inhibited
Mac-sorbitol	35°C non CO2(24 hr)	Non-sorb fermenting E.coli	yes, clear ,non-sorbitol colonies
		E. coli ATCC 25922	yes, sorbitol fermenting colonies

Chromagar(MRSA)	35°C non CO2 (24 hrs) no light.	Staph aureus Pos for oxacillin resistance	Mauve-pink growth
		Staph aureus ATCC 25923	No growth, inhibited, no color
Chromagar (STRB)	35˚C non-C02 (24 hrs) no light	Strep GrB	Mauve-pink growth
		Strep GrA	No growth, inhibited, no color
MH agar plates	35°C non CO2(24 hrs)	E.coli ATCC 25922 E.coli ATCC 35218 SA ATCC 25923 PA ATCC 27853	Yes
Mycosel slants	Fungal incubator	Tricophyton	Yes
		E. coli 25922	Inhibited or no growth

QC to be performed at SJMC Microbiology:

1. Add test QC organisms to 3.0ml of saline to reach a 0.5 MacFarland using the densichek. Prepare a 1:100 dilution in saline for non-selective media and a 1:10 for selective media. Using a calibrated loop, transfer 0.01ml (blue loop) of the inoculum to 1.0ml of saline.

2. For non-selective media, use another calibrated loop, transfer 0.01ml (blue loop) of the inoculum to the media for testing. This represents approximately 1000 colony forming units/ml. For selective media, use 2 loopfuls of inoculum to make 10,000 cfu/ml.

3. Colonies must be of sufficient size and colony morphology after 24-48 hrs of incubation to pass quality control.

4. Plates from lots that require QC will not be used to set-up cultures until QC has passed.

Media from SCH/SFH/SAH/SEH/HCH:

1. Send one Chocolate plate of a new shipment and/or lot received that requires QC to SJMC Microbiology for testing. Label the plate with date received and what facility the plate is from. Tape the plate closed and add to the specimens coming over to SJMC in the courier box.

2. Sequester lot until QC has been completed.

3. SJMC lab will fax or email results of each test to SCH, SFH, SAH, SEH or HCH after completion of QC. The media can be removed from sequester and available for use.

If media fails QC:

1. Isolate the lot number of the plates that have failed until QC has been resolved.

2. Repeat testing with fresh organisms.

3. If QC fails again, **DO NOT USE** that lot of media and contact the manufacturer immediately. Document on a Quality form.

4. If the media that has failed is from SCH, SFH, SAH, SEH or HCH, contact the lab immediately so that this lot is isolated and will not be used.

Recording results:

1. Record lot number, expiration date of each plate and if the media passed QC in LIS QC LOT Logs for that month under each facility . At the end of each month, the manager or appointee will review for acceptance.

REFERENCE

CLSI, M22-A3 document, Quality control for commercially prepared microbiology culture media. June, 2004**.**