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SUMMARY OF TESTING CHANGES BY DEPARTMENT

EPIC Beaker Implementation 11/01/2020

CHEMISTRY

Red Alerts are called within 1 hour; 24 hours/7 days a week.
Blue Alerts will be called between 7 a.m. and 7 p.m.

	Standardized for BL					
CHEMISTRY	**CRITICAL VALUES**		**Unit of measure**	**Inpatient**	**Outpatient/ Outreach**	**Outpatient/ Outreach**
	Less Than	**Greater Than**		**(RED Alerts)**	**(RED Alerts)**	**(BLUE Alerts)**
Bilirubin, Total & Neonatal 0 - 23 hrs	--	7.9	mg/dL	X	X	
24 - 35 hrs		10.9	mg/dL	X	X	
36 - 47 hrs		13.9	mg/dL	X	X	
48 - 59 hrs		14.9	mg/dL	X	X	
60 - 71 hrs		15.9	mg/dL	X	X	
72 - 83 hrs		16.9	mg/dL	X	X	
84 - 144 hrs		17.9	mg/dL	X	X	
145 hrs - 13 days		15	mg/dL	X	X	
14 - 20 days		15	mg/dL	X	X	
BUN		100	mg/dL	X		X

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	Standardized for BL				Outpatient/ Outreach	Outpatient/ Outreach
CHEMISTRY	**CRITICAL VALUES**		**Unit of measure**	**Inpatient**		
	Less Than	**Greater Than**		**(RED Alerts)**	**(RED Alerts)**	**(BLUE Alerts)**
Calcium, Ionized	3	6.5	mg/dL	X	X	
Creatinine 0 - 18 years	--	2.8	mg/dL	X	X	
19-116 years	--	7	mg/dL	X		X
≥ 117 years	--	2.8	mg/dL	X	X	
Phosphorus 0 - 14 days		10.5	mg/dL	X		X
> 14 days - Adult	< 1	> 10	mg/dL	X		X
Thyroid Stimulating Hormone 0 - 2 days		34.6	uIU/mL	X	X	
> 2 days - < 3 years	0.1	30	uIU/mL	X	X	

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BEAKER ABG REFERENCE RANGES -

Changes from Soft LIS highlighted

TEST	Specimen	Units	CURRENT Soft LIS Ages	LOW	HIGH	NEW Epic Beaker LIS Ages	LOW	HIGH
pCO2	Arterial	mm Hg	24 m +	35	45	24 m +	32	45
HCO3	Arterial	mmol/L	13 y+	23	29	13 y+	19	27
TCO2	Arterial	mmol/L	0-11 mo	17	27	0- <1 y	20	28
TCO2	Arterial	mmol/L	1-12 y	20	29	1-12 y	17	28
TCO2	Arterial	mmol/L	13 y+	22	32	13 y+	20	29
BE	Arterial	mmol/L	0+	-2	2	0+	-3	3
HCO3	Venous	mmol/L	0+	24	28	0+	19	27
TCO2	Venous	mmol/L	0-11 mo	17	27	0- <1 y	20	28
TCO2	Venous	mmol/L	1-12 y	20	29	1-12 y	17	28
TCO2	Venous	mmol/L	13 y+	22	32	13 y+	20	29
HCO3	Mixed Venous	mmol/L	0+	24	28	0+	19	27
TCO2	Mixed Venous	mmol/L	0-11 mo	17	27	0- <1 y	20	28
TCO2	Mixed Venous	mmol/L	1-12 y	20	29	1-12 y	17	28
TCO2	Mixed Venous	mmol/L	13 y+	22	32	13 y+	20	29
HCO3	Capillary	mmol/L	13 y+	23	29	13 y+	19	27
TCO2	Capillary	mmol/L	0-11 mo	17	27	0- <1 y	20	28
TCO2	Capillary	mmol/L	1-12 y	20	29	1-12 y	17	28
TCO2	Capillary	mmol/L	13 y+	22	32	13 y+	20	29

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Changes to Blood Gas Panels in Beaker LIS:

Chemistry Changes with Beaker			
Current LAB/Soft Code	**Current Soft Test Name**	**New Beaker Code**	**New Beaker Test Name**
LAB5227	BLOOD GASES, ARTERIAL, OR/CPR	LAB5331	Blood Gases, Arterial
LAB5335	BLOOD GASES CRITICAL CARE PANEL I	LAB7021	Blood Gases, Critical Care Panel
LAB5336	BLOOD GASES CRITICAL CARE PANEL II		
LAB5337	BLOOD GASES CRITICAL CARE PANEL III		
LAB5346	GREEN ROOM PANEL, WHOLE BLOOD	LAB5014 LAB5149	Basic Metabolic Panel Hemoglobin & Hematocrit
LAB5363	PRE OPERATIVE PANEL, WHOLE BLOOD	LAB5014 LAB5149	Basic Metabolic Panel Hemoglobin & Hematocrit
LAB5331	ER ABG PANEL	LAB5331	Blood Gases, Arterial
LAB5339	ER VBG PANEL	LAB5331	Blood Gases, Arterial
LAB6510	HYPONATREMIA PANEL	LAB7873	Sodium, Direct Potentiometry

Whole blood analytes may be ordered with the ABG panel individually as needed

Other Chemistry Updates:

- No longer offering Glucose Tolerance Tests (GTTs) that are longer than 2 hours to non-pregnant patients. The 2-hour GTT will still be offered (LAB5054).
- Interpretations will no longer be provided for GTTs.
- Pregnancy GTTs (2hr and 3hr) will not change.
- Calcium will no longer be performed when a PTH is ordered. If a calcium is needed, physicians will have to order the calcium separately either as an individual test or as part of a chemistry panel.

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Reference Range changes for lipid panel – GP, FH, RO, Troy

Reference range changes – Neonatal Bilirubin

Reference ranges and critical values for bilirubin in neonates will be changed on November 1st. The change will allow reporting in hours, rather than days.

Age	Ref Range (mg/dL)	Critical value (mg/dL)
0 – 23 h	0.3 – 7.9	> 7.9
24 – 35 h	0.3 – 10.0	> 10.9
36 – 47 h	0.3 – 12.0	> 13.9
48 – 59 h	0.3 – 12.0	> 14.9
60 – 71 h	0.3 – 15.0	> 15.9
72 -83 h	0.3 – 15.0	> 16.9
84 -144 h	0.3 – 15.0	> 17.9
7 – 13 days	0.3 – 15.0	> 15.0
14 – 20 days	0.3 – 8.0	> 15.0
21 – 27 days	0.3 – 6.0	None
28 days – adult	0.3 – 1.2	None

Reference Range changes for lipid panel – GP, FH, RO, Troy

Adults

HDL CHOLESTEROL
Optimal cut-off for females will be changed from > 40 mg/dL to > 50 mg/dL

Pediatrics
Cut-offs for lipids will be updated on November 1st and are based on the Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents:

TOTAL CHOLESTEROL
Acceptable: <170 mg/dL **
Borderline high: 170-199 mg/dL
High: > or = 200 mg/dL

TRIGLYCERIDES
2-9 years:
Acceptable: <75 mg/dL **
Borderline high: 75-99 mg/dL
High: > or = 100 mg/dL

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10-17 years:
Acceptable: <90 mg/dL **
Borderline high: 90-129 mg/dL
High: > or = 130 mg/dL

HDL CHOLESTEROL
Low HDL: <40 mg/dL
Borderline low: 40-45 mg/dL
Acceptable: >45 mg/dL **

LDL CHOLESTEROL:
Acceptable: <110 mg/dL **
Borderline high: 110-129 mg/dL
High: > or = 130 mg/dL

NON-HDL CHOLESTEROL
Acceptable: <120 mg/dL **
Borderline high: 120-144 mg/dL
High: > or = 145 mg/dL

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HEMATOLOGY

- BM differential (percentage) will be reported on a bone marrow biopsy report, when applicable.
- WBC inclusions will be reported as present/absent.
- Reticulocytes will be reported in absolute and in percentage.
- Immature Granulocytes will be reported in absolute and percentage.

COAGULATION:

- Dabigatran and Reptilase will no longer be offered in house, but will be send-out tests. Please order lab **6432, MISCELLANEOUS PROCEDURE, GENERIC.**

URINALYSIS:

- NEW WBC and RBC Reportable Ranges in Beaker:

	Current Soft Reportable Ranges (per hpf)	New Beaker Reportable Ranges (per hpf)
WBC Ranges	0-2 (Negative) 3-10 11-24 25-50 >50	0-5 6-10 11-20 21-50 >50
RBC Ranges	0-2 (Negative) 3-10 11-24 25-50 >50	0-2 3-5 6-10 11-20 >20

- Critical Sperm Criteria:

	Inpatient (RED Alerts)	Outpatient/ Outreach (RED Alerts)	Outpatient/ Outreach (BLUE Alerts) (called 7:00 am- 7 :00 pm)
Urinalysis			
Sperm presence Females <16 years Outpatients			x
Sperm presence Females: NH			x
Sperm presence Females: Inpatients, EC	x		
Sperm presence Males <10 years	x		x

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MICROBIOLOGY

Test name and code change summary:

Old Test Name	Soft Test Code	Beaker Equivalent	Epic LAB#
Vaginosis Screen (AFFIRM Test)	AFFRM	Vaginosis Screen (AFFIRM Test)	LAB5532
Antigen, CSF Cryptococcal	AGCRC	Antigen, Cryptococcal, CSF	LAB6766
Antigen, Cryptosporidium, Stool	AGCRP	Antigen, Cryptosporidium, Stool	LAB5464
Antigen, Serum Cryptococcal	AGCRS	Antigen, Cryptococcal, Serum	LAB6765
Antigen, Giardia, Stool	AGGRD	Antigen, Giardia, Stool	LAB5465
Antigen, Legionella, Urine	AGLUR	Antigen, Legionella, Urine	LAB5468
Antigen, Rotavirus, Stool	AGROT	Antigen, Rotavirus, Stool	LAB5469
Antigen, Streptococcus pneumoniae, Urine	AGSP	Antigen, Streptococcus pneumoniae, Urine	LAB5471
Antigen, Group A Strep, Throat (Pharynx)	AGSSA	Antigen, Group A Strep, Throat (Pharynx)	LAB5472
C. difficile GDH/Toxin with NAA Reflex	CDT	C. difficile GDH/Toxin with NAA Reflex	LAB7110
Culture, AFB Blood	CXABL	Culture, AFB Blood	LAB6771
Culture, AFB	CXAFB	Culture, AFB	LAB5475
Culture, Anaerobic	CXANA	See Culture IUD; Culture, Fluid; Culture, Tissue; Culture, Surgical and Culture, Wound, Deep	Various
Culture, Blood	CXBLD	Culture, Blood	LAB5477
Culture, Bone Marrow	CXBM	Culture, Bone Marrow	LAB5478
Culture, CSF	CXCSF	Culture, CSF	LAB5482
Culture, Cath Tip or Medical Device	CXCT	Culture, Medical Device or Cath Tip	LAB5479
Culture, Ear	CXEAR	Culture, Ear	LAB5484
Culture, Eye	CXEYE	Culture, Eye	LAB5485
Culture, Fungus Blood	CXFBL	Culture, Fungus, Blood	LAB5488
Culture, Fungus Hair, Skin, Nail	CXFDM	Culture, Fungus, Hair, Skin, Nail	LAB5489
Culture, Fluid	CXFLD	Culture, Fluid	LAB5486
Culture, Fungus Routine	CXFUN	Culture, Fungus	LAB5487
Culture, GC	CXGC	Culture, Gonorrhea	LAB5490

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Culture, Genital	CXGEN	Culture, Genital	LAB5491
Culture, Legionella	CXLEG	Culture, Legionella	LAB5495
Old Test Name	**Soft Test Code**	**Beaker Equivalent**	**Epic LAB#**
Culture, MDR-XDR	CXMDR	MDR Screen, Non CRE ESBL	LAB5496
Org ID w/susceptibility	CXOID	Culture, Organism Identification with Susceptibility	LAB5534
Organism Identification	CXORG	Culture, Organism Identification	LAB5533
Culture, Quantitative Bacterial	CXQUA	Culture, Quantitative Bacterial, Tissue	LAB5499
Culture, Respiratory	CXRES	Culture, Respiratory, Lower, Routine	LAB5500
Culture, Staph. aureus	CXSA	Culture, Staph aureus	LAB5501
Culture, Stool	CXSTL	Culture, Stool	LAB5503
Culture, Sterility	CXSTR	Culture, Sterility	LAB6677
Culture, Tissue	CXTIS	Culture, Tissue	LAB5504
Culture, Urine	CXUR	Culture, Urine	LAB5507
Culture, VRE	CXVRE	Culture, Vancomycin Resistant Enterococci (VRE)	LAB0912
Culture, Wound Deep	CXWND	Culture, Wound Deep (AER/ANA)	LAB5510
Culture, Wound Superficial	CXWNS	Culture, Wound Superficial (AER)	LAB5511
Antigen, Lactoferrin, Stool	FFLA	Antigen, Lactoferrin, Stool	LAB5513
Rapid Influenza and RSV by PCR	FLRSV	Influenza A/B and RSV, NAA	LAB6760
Fecal Leukocytes	FWBC	Stain, Fecal Leukocytes	LAB5514
H. pylori Urease	HPYLU	H. pylori Urease, Gastric Biopsy	LAB5515
Bordetella pertussis, Nucleic Acid Amplification	IBPNA	Bordetella pertussis/parapertussis, NAA	LAB6861
Chlamydia trachomatis, Neisseria gonorrhoeae DNA	ICNG	Chlamydia trachomatis, Neisseria gonorrhoeae DNA by Nucleic Acid Amplification	LAB6531
Chlamydia trachomatis DNA	ICTG	Chlamydia trachomatis Detection by Nucleic Acid Amplification	LAB6532
Insect/Larvae Identification	IDPAR	Identification, Insect/Larvae/Worm	LAB5516
Enterovirus by Nucleic Acid Amplification	IEVNA	Enterovirus by Nucleic Acid Amplification, CSF	LAB6860
Neisseria Gonorrhoeae DNA	INGG	Neisseria Gonorrhoeae Detection by Nucleic Acid Amplification	LAB6533
Trichomonas vaginalis by PCR	ITVG	Trichomonas vaginalis, NAA	LAB7076
Minimum Bactericidal Concentration	MBC	Minimum Bactericidal Concentration	LAB5518

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Meningitis/Encephalitis Panel by NAA	MEPNG	Meningitis/Encephalitis Panel, NAA	LAB7060
Old Test Name	**Soft Test Code**	**Beaker Equivalent**	**Epic LAB#**
Ova and Parasites	OP	Ova and Parasites	LAB5519
Pinworm Exam	PINWM	Pinworm Exam	LAB5520
Smear, Blood Parasites	SMBP	Smear, Blood Parasites	LAB5522
Group A Strep by NAA	SSA	Group A Strep by NAA	LAB6907
Group A Strep by NAA w/ susceptibility	SSAS	Group A Strep by NAA w/ susceptibility	LAB6908
Group B Strep Screen	SSB	Group B Strep Screen	LAB5182
Stain, Cyclospora	STCSP	Stain, Cyclospora	LAB5524
Stain, Fungus	STFUN	Stain, Fungus	LAB5525
Stain, Gram	STGRM	Stain, Gram	LAB5526
Stain, Isospora	STISO	Stain, Isospora	LAB5527
Stain, Microsporidium	STMIC	Stain, Microsporidium	LAB5528
Stain, Nocardia	STNOR	Stain, Nocardia (Deactivate)	LAB5529
Stain, Pneumocystis	STPCP	Stain, Pneumocystis	LAB5530
Wet Prep Exam	WP	Vaginosis Prep (Wet Prep) Exam	LAB5523
Culture, Stool w/Comment to look for Vibrio	N/A: This is a new test and is not currently orderable in SOFT	Culture, Vibrio, Stool	LAB7219
Culture, Stool w/Comment to look for Yersinia	N/A: currently not a stand-alone orderable test in SOFT	Culture, Yersinia, Stool	LAB7872
Culture, Respiratory, Source Nasopharynx	N/A - New Test Build	Culture, Nasopharynx	LAB7176
Culture, Respiratory, Source Throat	N/A - New Test Build	Culture, Throat/Pharynx	LAB7177
Culture, Respiratory, Source Sinus Contents	N/A - New Test Code	Culture, Sinus Contents	LAB7178
Culture, MRSA	CXMRS	Staphylococcus aureus/MRSA by PCR, Nares	LAB3666
AFFIRM - Full Panel	AFFRM	Candida, DNA Probe	LAB911
AFFIRM - Full Panel	AFFRM	Gardnerella vaginalis, DNA Probe	LAB914
AFFIRM - Full Panel	AFFRM	Trichomonas vaginalis, DNA Probe (Affirm)	LAB03141
C. difficile GDH/Toxin	CDT	C. difficile GDH/Toxin	LAB03142
Influenza A/B by PCR	FLUNA	Influenza A/B, NAA	LAB03608
Respiratory Syncytial Virus (RSV) by PCR	RSVN1	Respiratory Syncytial Virus (RSV), NAA	LAB03607
Culture, Prostate Biopsy screen	N/A	Culture, Pre-Prostate Screen	LAB03624
H. pylori Breath Test	N/A - Sendout to DB	H. pylori Breath Test	LAB03597

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Culture, Tissue or Culture, Deep Wound	N/A	Culture, Surgical	LAB03127
Old Test Name	**Soft Test Code**	**Beaker Equivalent**	**Epic LAB#**
Culture, Anaerobe	N/A - New Test	Culture, Intrauterine Device (IUD)	LAB7230
Culture, MDR - CRE Screen	CXMDC	Culture, MDR - CRE Screen	LAB7569
Culture, MDR ESBL Screen		Culture, MDR ESBL Screen	LAB7570
Culture, MDR - NON CRE ESBL Screen	CXMDR	Culture, MDR - NON CRE ESBL Screen	LAB7568

Test changes

- Culture, Respiratory will now be orderable by source specific cultures
  - Culture, Nasopharynx
  - Culture, Respiratory, Lower, Routine
  - Culture, Sinus Contents
  - Culture, Throat/Pharynx
- Elimination of Culture, Anaerobe
  - Anaerobic culture automatically included as part of
    - Culture, Fluid
    - Culture, Surgical
    - Culture, Tissue
    - Culture, Wound, Deep
  - IUD specimens will now have their own culture: Culture, IUD
- Elimination of Trichomonas Antigen
  - Replaced with a Wet Prep. Reportable targets include
    - Clue Cells
    - Yeast
    - Motile Trichomonas

New Tests

- Culture, Yersinia, Stool
- Culture, Vibrio, Stool
- Intrapartum Group B Strep Screen
- Staphylococcus aureus/MRSA by PCR, Nares (replaces MRSA screen)
- Vaginosis Screen by PCR – See separate bulletin
- Bordetella Testing: Will no report *Bordetella pertussis* and *Bordetella parapertussis*

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ANATOMIC PATHOLOGY

Beaker reporting changes for Anatomic Pathology:

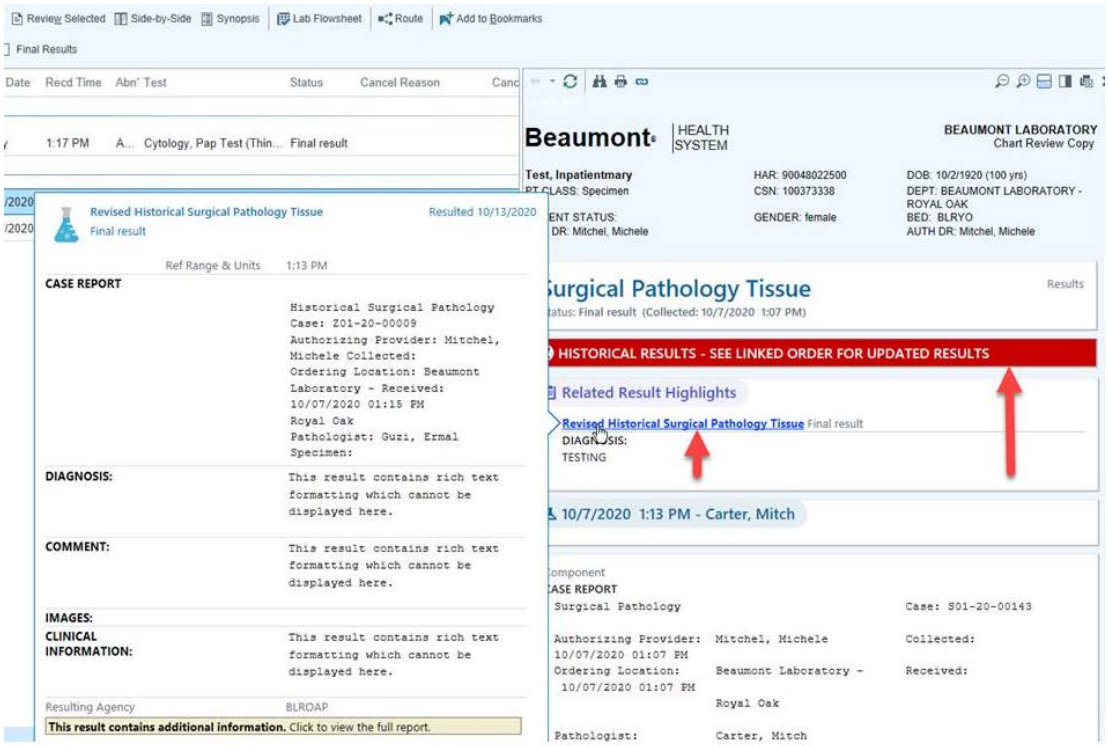
The diagnosis section in the Anatomic Pathology report will have formatting changes, which basically includes standard sentence formatting rules. The cancer checklists may appear slightly different to reflect the exact College of American Pathologist's (CAP) Cancer Checklist elements and formatting.

Some ancillary molecular tests that were previously resulted separately (e.g. ERPR, HER2, PDL-1, ALK, MMR, 1p/19q) will now be reported as an addendum on the surgical pathology/cytology report. Other molecular tests will continue to be reported separately**.**

Beaker reporting changes related to amendments and addendums:

An original pathology report signed out in Soft prior to December 1, 2020 (e.g. Surgical Pathology, Cytology, Cytogenetics, Flow Cytometry) cannot be changed after transition to Beaker. That is, we cannot amend or addend the original Soft report. Therefore, amendments or addendums to cases previously verified in Soft will be recreated in Beaker and appear in Beaker.

In order to provide visibility in EPIC that an amendment has been created on a specific case, an alert banner will appear on the old case in order to draw attention to the linked revised case. The user is also provided the option to hover over the hyperlink which provides a quick view of the revised report, or follow the hyperlink to access the full revised report.



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Reflex Molecular Testing:

Additional changes in reflex immunohistochemistry testing are occurring concurrently with Beaker implementation. Newer ancillary molecular tests related to AP have been added to the reflex algorithm. The current approved reflex tests for AP are listed below:

Anatomic Pathology Molecular Reflex Testing

Diagnosis	Test
Metastatic Carcinoma - any	MMR IHC
Metastatic Colorectal Ca - new diagnosis	Her2 IHC
Metastatic NSCLC - new diagnosis (including cytology cell blocks) and cases where NSCLC cannot be ruled out	PDL-1 (Clone 22C3)
Breast Carcinoma	ER/PR/Her2 IHC (no Her2 if DCIS)
Colon Carcinoma - resection	MMR IHC
Endometrial Carcinomas - resection	MMR IHC
Gastric Ca, GE Junction Ca - new diagnosis	Her2 IHC
Head and Neck Squamous Cell Carcinoma - new diagnosis	P16
Squamous Cell Ca presenting as LN mets of unknown primary site	P16

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CYTOLOGY

Pap- HPV test request changes:

Soft:	Beaker:
1. HPV any interpretation	1. HPV cotesting (Change in name only)
2. HPV if ASCUS	2. HPV if ASCUS/ASCH/AGC
3. HPV only	3. HPV if abnormal
	4. HPV only

Additional Pap ordering changes:

- Chlamydia/Gonorrhea must be ordered separately. Chlamydia/Gonorrhea is removed from AAOEs on pap test to simplify process.
- Cervix, endocervix added as source selection in electronic orders.
- Separate source detail AAOE has been eliminated, enter details (Left cervix, Right cervix, etc.) in the clinical information free text field
- One combined field for Last Menstrual Period/Menstrual status. One choice is mandatory, multiple choices can be selected.

Nongyn Cytology orders:

Soft:

- CYT One order for Nongyn or FNA orders, outreach or in-house

Beaker:

- Four separate orders for Fine Needle Aspirations and Nongynecologic Specimens

Outreach orders: CYTOLOGY, MEDICAL NON-GYN OUTREACH [LAB7862]
CYTOLOGY, MEDICAL FNA OUTREACH [LAB7908]

In-house orders: CYTOLOGY, MEDICAL NON-GYN [LAB6797]
CYTOLOGY, MEDICAL FNA [LAB7907]

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MOLECULAR

New Tests

The atypical bacterial panel will now also include the following standalone tests (which can also be ordered individually):

- *Mycoplasma pneumoniae by PCR (LAB7216)*
- *Chlamydophila pneumoniae by PCR (LAB7217)*
- *Legionella pneumophila (LAB7215)*

Discontinued Tests

- PLA1/A2

Reporting

- HIV Viral load reporting will have detected/not detected resulted in the report
- Some ancillary molecular tests that were previously resulted separately (HPV genotyping, B/T Cell Gene rearrangement, Microsatellite instability (MSI), BRAF, MLH1 promotor methylation and EGFR) will now be reported as an addendum on the surgical pathology/cytology report. Other molecular tests will continue to be reported separately**.**

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FLOW CYTOMETRY

- OKT-3 Transplant monitoring panel (FOKTG) will no longer be offered. For the CD3 absolute count, order CD4 absolute count (FCD4G), LAB6409.

- Flow Cytometry for Hematolymphoid Neoplasm CSF (FHEMC) can no longer be ordered. Order Flow Cytometry for Hematolymphoid Neoplasm (FHEMG), LAB6414 for all specimens including CSF specimens.

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SENDOUT TESTING

With the implementation to EPIC Beaker, there are several changes to performing lab location that may affect reference ranges and/or specimen stability. There are no major specimen collection changes. Please refer to the Lab Test Directory for new test offerings and modifications to current offerings after go-live. Major changes to performing lab location affecting levels, titers, and/or quantitations will also be available on the Laboratory Website.

Infectious Disease major changes listed below:

1. Bartonella Ab with reflex to titer is **switching from** ARUP to Mayo
2. ADAMTS13 Inhibitor Screen Assay with reflex to Bethesda Titer is **switching from** Versiti to Mayo
3. Diphtheria/Tetanus Ab Panel is **switching from** ARUP to Mayo
4. HHV6 IgG and IgM are **switching from** Quest to ARUP
5. Influenza A/B Virus IgG and IgM are **switching from** ARUP to Mayo
6. Poliovirus (Types 1, 3) Antibodies are **switching from** ARUP to Mayo
7. JC Virus by PCR Quantitative at Focus is **changing to** Qualitative at ARUP
8. Cytomegalovirus Antiviral Drug Resistance by Sequencing is **added to formulary** via ARUP
9. Adenovirus by PCR Quantitative is **added to formulary** via ARUP

Element Levels listed below **switching from ARUP to Mayo:**

10. Arsenic Level
11. Cadmium Level
12. Chromium Level
13. Mercury Level
14. Manganese Level
15. Selenium Level
16. Thallium Level

Drug Levels listed below **switching from ARUP to Mayo:**

17. Olanzapine Level
18. Paroxetine Level
19. Clobazam and metabolite
20. Flecainide Level is
21. 5-Flucytosine Level
22. Haloperidol Level
23. Procainamide and NAPA Level
24. Quetiapine Level
25. Rufinamide Level
26. Sertraline Level
27. Tiagabine Level
28. Warfarin Level
29. Acyclovir Level
30. Chlordiazepoxide Level