


Pathologist  Cytotechnologist
Feedback

**A QI Initiative for Non GYN Cytology Including
Participant Interaction**

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Objectives

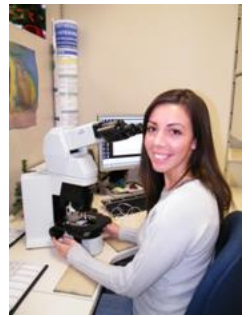
- Demonstrate how to provide effective PA –CT feedback for Non GYN cytology
- Identify few case scenarios that warrant PA –CT feedback - LHSC cases
- Share an objective QA method to monitor CT-PA Discrepancy in Non GYN cytology – Pittsburgh Medical Centre method

*We see this as an educational QA activity and
not as a performance indictor*

Introduction

- Over the years we have seen valuable QA monitors/performance indicators introduced for Gyn cytology
- Relatively fewer QA monitors/performance indicators for non GYN cytology
 - Cyto-histologic correlation, main focus
 - A powerful method but with limitation

Cytotechnologist



- CTs are **First Line** screeners/interpreters. Their level of performance and contribution have direct impact on the efficiency and accuracy of the tests/laboratory
- **GYN cytology is less complex** compared to non GYN cytology
- There is increasing complexity in **Non GYN cases**, ongoing education and one on one feedback are valuable and needed.

Next Generation Cytopathology Practice for CTs

- ROSE procedure
- Interpretation of cell block
 - H&E, thin needle cores
- Understand basics of biomarker testing
- Look up FCM report on Lymph node FNABs
- Look up biochemical test results on FNABs
 - PTH, Thyroglobulin

**Are CTs adequately trained for these
continuing special needs?**

How do we improve proficiency of CTs in Non Gyn cytology?



Role of Non GYN Discrepancy Analysis

- An important post-analytic QA measure
 - Promotes consistency in our overall cytopathology practice
 - Provides opportunity for feedback from pathologist to cytotechnologist
 - **Not straight forward: needs innovative ideas**



Non GYN Discrepancy Analysis Challenges

- Non GYN cytology is more complex
 - Still lack of standardized diagnosis for certain body sites
 - “Gray zone” diagnosis at times
 - Multiple diagnostic categories – thyroid
- Clinical management of atypical diagnosis may be different from organ to organ

Non GYN Discrepancy Analysis and Feedback Challenges

- Discrepancy analysis method is not standardized by CLIA/CAP or IQMH, inter-lab comparison of discrepancy data are not available or meaningful
- Literature review: minimal info on Non GYN Cytology discrepancy methodology
- **IQMH requirement , VI.1 AnalyticalCY022** *There shall be feedback on case material by the pathologists to the cytotechnologists. If screening by cytotechnologists and final sign out by pathologist is done at different geographic sites, the laboratory shall create mechanisms that facilitate communication between the individuals involved in the process, to ensure a high quality diagnostic outcome.*

PA – CT Discrepancy Feedback Methods (LHSC)

Case by Case Discrepancy Feedback

- Direct Feedback - best method
 - professional, collegial manner
- Using a feed back form- effective method

Cytology Feedback

Date: _____
 dd/mm/yr

Cytology Case #: CG _____
 RL _____
 NG _____

Specimen Type: _____

Cytotech Initial: _____

Cytotech Diagnosis: _____

Pathologist Diagnosis: _____

Comments: _____

Pathologist Initial: _____

Cytotech Review: Initial/date _____
(sign/date)

A good case for Cytology rounds

Return form to Cytology Coordinator 9999999-93

Scheduled Multi-head Microscope Rounds- Educational Value



An Objective QA Method for Discrepancy Analysis

**Discrepancy Analysis: Non GYN
Cytopathology**
by Stephen Raab and Paul Ohori
Pittsburgh Medical Centre

*Diagnostic Cytopathology 2006
34:4;265-271*



Non GYN Discrepancy Analysis and Feedback

**Susan McRae, MLT, ART, CMIAC,
M Med Sci (Cytol)
Senior Cytotechnologist, LHSC**

Objectives

- Tips for giving effective feedback
- Identify a few major discrepancy scenarios
- Analysis and application of the Pittsburg Method



Effective One- on-One Feedback

- Starts with **Collegial Behaviour**
- In a quiet environment away from others (pathologist's office)
- In a professional manner, proper communication

4 Easy Steps to Effective Feedback

- **Step 1-** Ask if you can give feedback. Starts with: “May I give you some feedback?”
 - **Step 2-** Describe the specific behavior. Starts with: “When you...”
 - **Step 3-** Describe the impact of the behavior on self or others. Starts with: “Here’s what happens when...”
 - **Step 4-** Next Steps o Starts with: “What can you do differently?” or “Thank you, keep it up!”
- Give **positive** as well as negative feedback



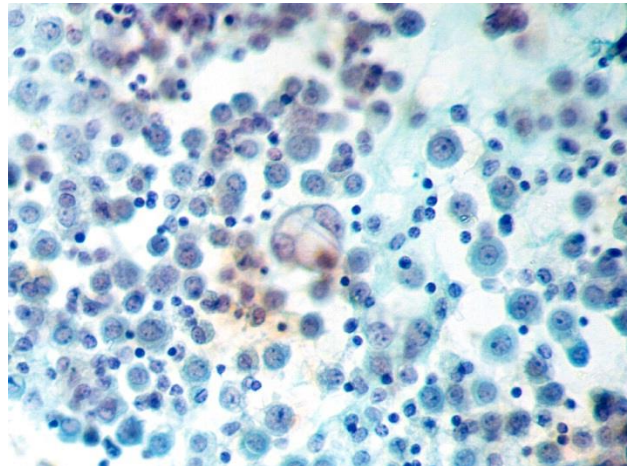
Additional Tips for CTs

- Independent follow up of cases
 - Record case number and review final sign out diagnosis
 - Follow up on difficult ROSE interpretation cases
 - Learn from surgical pathology follow up
- Consult with PA on difficult cases
 - Review slides (cell blocks, challenging morphology)
 - Open door policy
- Cytology rounds – discuss challenging cases

Non GYN Major Discrepancies

Examples

- False negative
 - Pleural fluid, single cell adenocarcinoma screened as negative for malignancy
 - Pleural fluid Melanoma screened as negative/atypical
 - Pleural fluid Myeloma cells screened as negative/atypical



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Pittsburg Discrepancy Analysis Method

- **Numerical value given to Non Gyn diagnostic categories**
 - based on institution's probability of malignant outcome

Nomenclature	Numerical value
Non diagnostic	0
Negative for malignancy (NGHUC)	1.0
Atypical cells (AUC)	2.5
Suspicious for malignancy (SHGUC)	4.0
Positive for malignancy (PHGUC)	5.0

- **Discrepancy defined as “CT interpretation minus PA ’s diagnosis”**
 - Defines minor and major discrepancies
 - Minor=insignificant (less than 2.0)
 - Major=significant (≥ 2.0)
- **Senior cytotech generates monthly data (LIS) and reviews stats**
 - Major discrepancies categorized as interpretive or screening error
 - Senior CT reviews cases with CTs as needed
- **Final result reviewed by Cytology Lab Director**
- **Data result is used as a performance indicator in Pittsburg Medical Centre**

LHSC Urine Cytology Lab Discrepancy Analysis January –June 2019

Concordance **2757 (95%)**

LHSC Cytology lab	Jan	Feb	Mar	Apr	May	Jun	Grand Total
-4						1	1
-2.5	1				1		2
-1.5	7	8	10	6	11	10	52
-1			1		1	1	3
0	379	375	441	527	529	506	2757
1	1	2	2	2	7	1	15
1.5	17	12	13	6	19	10	77
Grand Total	405	397	467	541	568	529	2907

Discordance **150 (5%)**

Minor **147 cases**

147	CT	PA
52	Neg	Atyp
3	Susp	Pos
15	Pos	Susp
77	Atyp	Neg

Major **3 cases** (FN, AUC ↑ PHGUC)

Limitations:

- Does not discriminate screening issues from interpretive issues.
- Time consuming manual analysis by senior CT

LHSC values generated using Excel (thanks to Sue McFarland!)

Comparison of Experienced Cytotechnologists

Senior

Senior cytotech	Jan	Feb	Mar	Apr	May	Jun	Grand Total
-4						1	1
-1.5	1	4	2				7
0	67	64	112	73	105	78	499
1					3		3
1.5	2	1	2		2	3	10
Grand Total	70	69	116	73	110	82	520

Concordance **96%**

Discordance **21 (4%)**

Minor **20 cases**

Major **1 case (FN)**

Junior

Junior cytotech	Jan	Feb	Mar	Apr	May	Jun	Grand Total
-1.5		1	2	2	5		10
0	67	63	63	64	76	63	396
1	1		1	1	3		6
1.5	4				3	1	8
Grand Total	72	64	66	67	87	64	420

Concordance **94%**

Discordance **24 (6%)**

Minor **24 cases**

Major **0**

Pittsburgh Method: Benefits

- True value of this method lies in the subsequent discussion of cases with major discrepancy among CTs and Pathologists
- Data becomes useful when new CTs are hired to compare their performance to that of the overall laboratory.

Our Thoughts

- Effective PA-CT feedback is an important post-analytic educational QA activity
 - Promotes consistency in our overall practice
 - Promotes communication, education and getting all of us to work together



Your Thoughts

- Do you think analysis of agreement rate between cytotechnologist and pathologist constitute value added work ?
- In this regulatory environment, should this be used as an **optional** post-analytic Quality Metrics in local laboratories i.e.. at their discretion ?

Discussion

- Share your experience

