Cytomorphological features in the diagnosis of Sarcoidosis

A Rare Malignancy of the Salivary Gland

The Best Quality Control (QC) Measure
Gynaecological Cytology Courses 2012

At Victorian Cytology Service we specialize in gynaecological cytology. One of our corporate objectives is “To train scientists and pathologists”. VCS provides short courses in gynaecological cytology for cytopathologists and scientists/cytotechnologists.

Cytology 5 Day Refresher Course ($1,250)
Monday 16th July – Friday 20th July 2012
Using both conventional and liquid based cytology slides, the following topics are covered:
- Normal & Unsatisfactory
- Benign Changes & Low Grade Squamous Intraepithelial Lesions
- High Grade Squamous Intraepithelial Lesions
- Glandular Lesions
- Cancer

Advanced Cytology 5 Day Course ($1,650)
Monday 23rd July – Friday 27th July 2012
Using both conventional and liquid based cytology slides, the following topics are covered:
- High Grade Squamous Intraepithelial Lesions (HSIL)
- Glandular Lesions
- Quality Assurance

These courses are held at the Victorian Cytology Service in Carlton, Victoria and have been structured to suit both cytotechnologists and pathologists. If you would like more information regarding the course content and cost please contact:

Denise Walsh
Assistant to the Executive Director
Victorian Cytology Service Incorporated
PO Box 178
Carlton South VIC 3053
Tel (03) 9250 0322  Fax (03) 9349 1949
E-mail: dwalsh@vcs.org.au

Hologic™ now offers The Total Cervical Screening Solution

Product news
Hologic™ is excited to announce the successful integration of the ThinPrep® 5000 Processor into laboratories across Europe. We have also added to our ThinPrep Imaging System with the new Review Scope Manual Plus option.

To learn more about these exciting products contact australia@hologic.com

Hologic™ is delighted to receive FDA approval for its recently launched Cervista™ HPV High Risk Test

- Cytology laboratory compatible
- Easy to use with 4 hour walk away time
- Detection of 14 high risk HPV types
- Internal control reduces false negatives

www.cervistaHPV.com
www.cytologystuff.com
www.hologic.com
The Australian Society of Cytology Inc
Suite 6, 1st Floor
161 Ward Street
PO Box 491
NORTH ADELAIDE  SA  5006
Phone: 08 8361 7233
Fax: 08 8361 7357
Email: national.office@cytology-asc.com
Web: www.cytology-asc.com

EXECUTIVE
President: Ms Gillian Phillips
Vice President: A/Prof Marion Saville
Secretary: Mr Greg Tywoniuk
Treasurer: Mrs Linda Brewer
Asst Secretary: Ms Tania Papadakis

COUNCILLORS
ACT: Dr Michael Brown
NSW: Dr Peter Earls
Qld: Dr Edwina Duhig
SA: Mr Costanzo Fusco
Tas: Dr Eileen Long
Vic: Ms Deborah Reich
WA: Dr Priyanthi Kumarasinghe

Chief Examiner: Ms Grace Tan
Board of Education: Dr Paul Shield

EDITOR
Jenny Ross
RCPA Cytopathology QAP
11A/191 Hedley Avenue
PO Box 3202
HENDRA Qld 4011
Phone: 07 3129 8401
Fax: 07 3868 2405
Email: jennifer.ross@rcpaqap.com.au

ASC Advertising Rates
Cytoletter
Quarter Page $99.00
Half Page $198.00
Full Page $330.00
Website $110.00

All prices include GST
Design and layout attracts an extra fee. Rates for coloured advertisements available upon application to the National Office. Contact ASC for further details.

CONTENTS
4  President’s Column
   Gillian Phillips
5  Editorial
   Jenny Ross
6  Cytomorphological features in the diagnosis of Sarcoidosis taken by transbronchial ultrasound guided needle aspiration
   Donaldson S, Beckett L, Hodgson A, James D
   Pathology Queensland
12  A Rare Malignancy of the Salivary Gland
    Ana Bushell, Deepali Danayak, QML Pathology
13  Cytoletter Guidelines for Contributors
14  ASC National Scientific Meeting Notice
15  Guidelines for Submission of Abstracts
16  The Best Quality Control (QC) Measure to Avoid a High Grade Review
    Ann Wong-Lee, Laverty Pathology
19  CEC Scheme: Update on Audits, Participation Reports and Registration Levels
20  Quiz: What do you see?
    Marilyn Betchley
23  Branch News
27  Meeting Calendar
29  Forms

DEADLINE FOR THE NEXT EDITION: 13 August 2012

The opinions expressed in this Newsletter, including those in the technological and advertisement sections, are not necessarily those of the Editor, the Australian Society of Cytology, Publisher or Printer.
Gillian Phillips

Winter is upon us (well it certainly is in Victoria) and the year is almost halfway through. By the time this edition of Cytoletter hits your desk those ASC members who have elected to sit for their CT(ASC) qualification this year will either be brushing up on some last minute study, or will have actually completed the examinations. My best wishes for success go out to all candidates. The CT(ASC) qualification is an important mark of professional competence for scientists in our field and one of the many valuable benefits of membership of the ASC. Another valuable benefit of membership for non-medical members of the ASC is the opportunity to participate in the Continuing Education for Cytologists (CEC) Program, which has been operating since 1998. Access to this program and the recording of data have been made much easier recently as a result of a series of innovations to the website introduced by Mark Stevens, the CEC Registrar. Now, Mark is endeavouring to contact members who have previously registered their CEC participation but no longer appear to be active in the scheme or submitting data. I hope that if you are one such member you will consider re-activating your participation in this important program, which endeavours to raise the professional status of those working in the discipline.

Many of you will be aware of the work which has now commenced on the Renewal of the National Cervical Screening Program (NCSP). The Renewal will review the science and technologies related to the program to ensure that all Australian women have access to a cervical screening program that is based on the best available evidence and promotes best clinical practice. The Renewal Steering Committee will consult with and seek input from a wide range of NCSP partners, including health professionals, scientists and consumers, through a Partner Reference Group (PRG). The ASC has asked Dr Annabelle Farnsworth to represent our Membership on this year will either be brushing up on some last minute study, or will have actually completed the examinations. My best wishes for success go out to all candidates. The CT(ASC) qualification is an important mark of professional competence for scientists in our field and one of the many valuable benefits of membership of the ASC. Another valuable benefit of membership for non-medical members of the ASC is the opportunity to participate in the Continuing Education for Cytologists (CEC) Program, which has been operating since 1998. Access to this program and the recording of data have been made much easier recently as a result of a series of innovations to the website introduced by Mark Stevens, the CEC Registrar. Now, Mark is endeavouring to contact members who have previously registered their CEC participation but no longer appear to be active in the scheme or submitting data. I hope that if you are one such member you will consider re-activating your participation in this important program, which endeavours to raise the professional status of those working in the discipline.

Many of you will be aware of the work which has now commenced on the Renewal of the National Cervical Screening Program (NCSP). The Renewal will review the science and technologies related to the program to ensure that all Australian women have access to a cervical screening program that is based on the best available evidence and promotes best clinical practice. The Renewal Steering Committee will consult with and seek input from a wide range of NCSP partners, including health professionals, scientists and consumers, through a Partner Reference Group (PRG). The ASC has asked Dr Annabelle Farnsworth to represent our Membership at PRG meetings, the first of which was held in March 2012. A link to the Renewal website, which carries periodic updates, can be found on the ASC website and I encourage all ASC members with an interest in this area to keep abreast of developments via this channel.

I am delighted to see that the program for this year’s Annual Scientific Meeting, to be held in Adelaide from 5-8 October, appears to be excellent, encompassing a broad range of topics and guaranteeing something of interest for ASC members working in all areas of Cytology. I would like to remind everyone that early registration, which provides a significant saving on the standard registration fee, closes on 13 July and I encourage you to take advantage of this if you are coming to the meeting. Places are also filling fast for the ASC Tutorial, which follows in Adelaide immediately after the ASM, so please consider registering your interest early. This very popular Tutorial covers a range of relevant topics, presented by expert cytologists, and provides an opportunity for members to revise and update their skills.

Subscriptions

Membership renewal notices for 2012-2013 will be mailed out shortly and Members will notice significant price increases for subscriptions.

In past years, the Society has been fortunate to be able to offer Members only modest price increases, and in some years no increase at all.

As Members will recognise from their own experiences, costs have been rising across a wide range of services in the last few years and this has meant that our Society’s expenditure has also increased. Members of the Executive have worked hard this financial year to reduce expenditure by introducing various cost saving measures, however our budgeted expenditure continues to exceed our projected income.

We are no longer able to absorb those increased costs as we have done in the past and therefore we now need to increase subscriptions substantially to allow us to continue to provide Members with the services they require. The Society has tried to keep the increase in subscription costs to the smallest practicable amount.

Subscriptions for 2012 – 2013 will be:

Medical
Pathologist: $250.00
Registrar: $180.00
Non Medical: $180.00
Associate: $120.00

All prices include GST.

Linda Brewer
Treasurer
Editorial

Jenny Ross

It’s hard to believe we are already half way through the year and if you are anything like me you will be wondering how the months are flying by so quickly! Thanks so much to those of you who have commented so favourably on the new Cytoletter format. We appreciate and are encouraged by your feedback.

Thank you to those contributors for adapting their presentations from the 2011 National Scientific Meeting for inclusion in this edition. Stephen Donaldson won the best scientific poster presentation describing the experience of the Cytopathology Department at Pathology Queensland in diagnosing sarcoidosis in needle aspiration specimens collected using transbronchial ultrasound. Steve presents three cases with accompanying photomicrographs illustrating the cytomorphological features of this disease. Another poster from Queensland was judged and awarded the prize for the best case study. This was submitted by Ana Bushell from QML Pathology. Her presentation describing acinic cell carcinoma of the salivary gland outlines the pitfalls in diagnosing this tumour when only low grade changes may be present.

I am also grateful to Ann Wong-Lee from Laverty Pathology for submitting her paper evaluating different quality control techniques employed in her laboratory to minimise the risk of false negative cases. Ann provides an overview of results from a study which compared full re-screening, rapid re-screening, double checker review and paired conventional/Thinprep case review.

Also in this edition Mark Stevens, the CEC Registrar, has provided an update on the Society’s continuing education scheme for cytologists. A recent audit of the scheme has highlighted some areas for improvement. The overall participation in the scheme is a little disappointing and I would encourage all members to utilise this valuable resource for recording their ongoing educational activities. You will notice our resident ‘Quiz Master’, Marilyn Betchley, has provided another series of photomicrographs to test your morphological criteria and remember that these types of exercises can be recorded in your CEC Diary.

The National Scientific Meeting is fast approaching and I suspect many of you are considering submitting proffered papers and posters at this meeting. For your information the new guidelines for abstract submission has again been included on page 15. I understand from the conference committee that a particularly enjoyable scientific and social schedule has been organised and no doubt one of the highlights will be the conference dinner. Please remember the dinner is themed and the dress code is ‘Black and White’ – I look forward to another Adelaide extravaganza!

“I am definitely going to take a course on time management...just as soon as I can work it into my schedule.” - Louis E Boone

Flashback 2003

Australian Society of Cytology Inc 33rd Annual Scientific & Business Meeting 2003, Hobart - various members enjoying the Conference Dinner. I believe this was the last Scientific Meeting held in Hobart, we have fond memories. I invite you to send your own ‘historical’ photos of past meetings or workshops to share with Cytoletter members.

Editor
INTRODUCTION
Sarcoidosis, a multi-system granulomatous disease of uncertain origin, is characterised by the formation of noncaseating epithelioid granulomas as first described by Hutchinson in 1877.\textsuperscript{1,2} The diagnosis is made using a multidisciplinary approach including clinical, radiological and pathological procedures (including cytology). However, this pathological disease entity remains a diagnosis by exclusion, and these include mycobacterial and parasitic infections, malignancies such as Lymphoma or Seminoma and a foreign body like reaction to keratin in Squamous Cell Carcinoma.

CASE REPORTS
Case 1
Clinical: 58 year old male. ? Sarcoid
Cytology: Numerous granulomas containing epithelioid histiocytes in keeping with the clinical impression of Sarcoid.
Ancillary tests:
• Cell block containing non-caseous granulomas
• Grocott, ZN, and PAS stains on histology sections were negative.
• BAL - differential cell count contained 30% lymphocytes.
• Fungal and Mycobacterial cultures on bronchial washings were negative.
• Angiotensin Converting Enzyme 190 U/L.
• QuantiFERON-TB Gold Assay for Mycobacterium tuberculosis – negative.

Figure 1a: Numerous large granulomas in a background of lymphocytes - Case 1 (Diff-Quik x4)
Figure 1b: A portion of the granuloma in Figure 1a – Case 1 (Diff-Quik x20)
...from previous page

Case 2
Clinical: 36 year old male. History of cough and sweats. 5kg weight loss, non smoker, CT scan showed enlarged mediastinal lymph nodes. Pulmonary nodule ? Sarcoidosis ? lymphoma
Cytology: Presence of epithelioid histiocytes in keeping with a diagnosis of Sarcoidosis.
Ancillary tests:
- Grocott & ZN stains on cell block and histology biopsy sections were negative.
- BAL - differential cell count 43% Lymphocytes with a CD4/CD8 ratio of 20:1.
- Fungal and Mycobacterial cultures on bronchial washings were negative.
- Angiotensin Converting Enzyme 56 U/L.

Figure 2a: A small granuloma in a background of lymphocytes – Case 2 (Diff-Quik x4)

Figure 2b: The same granuloma showing the tangle of epithelioid histiocytes at a higher power – Case 2 (Diff-quik x20)

Figure 3a: A granuloma containing epithelioid histiocytes, macrophages, and lymphocytes - Case 2 (Pap x10)

Figure 3b: High power view of the same granuloma highlighting the footprint outlines of the epithelioid histiocytes – Case 2 (Pap x40)

Case 3
Clinical: 57 year old female. Enlarged mediastinal lymph nodes and bilateral infiltrates. Likely sarcoidosis
Cytology: Multinucleated giant cells containing asteroid bodies and Schaumann are present. Features in keeping with a diagnosis of Sarcoidosis.
Ancillary tests:
- Cell block showed granulomas and multinucleated giant cells with asteroid bodies.
- Histology sections showed granulomas and multinucleated giant cells but no inclusions.
- Grocott & ZN stains on Histology sections were negative.
- Culture for fungi & Mycobacterium were negative.

Cont...
CYTOMORPHOLOGY OF SARCOIDOSIS

- Granulomas composed of tight aggregates of epithelioid histiocytes (major component)
- Epithelioid histiocytes
  - elongated, elliptical, spindle shaped or curved nuclei
  - nuclear outline described as “footprint”, boomerang, c or v shaped
  - abundant cytoplasm with indistinct borders
  - the number of histiocytes in a granuloma varies from 5 -50 or more
- Multinucleated giant cells identified as the only constituent or admixed with epithelioid histiocytes
- Multinucleated giant cells with or without inclusions – asteroid bodies, Schaumann bodies
- Lymphocytes, variable in number. Most abundant in the earlier stages of the disease
- Clean background (non caseating)

DISCUSSION

The use of transbronchial needle aspiration (TBNA) dates back to the 1950s, however its effectiveness was limited as it was performed through a rigid bronchoscope. The introduction of the more flexible fibre-optic bronchoscope in the late 70s by Wang et al reduced the necessity for more invasive procedures. More recent developments have included the introduction of TBNA utilising endobronchial ultrasound (EBUS), a technique which is minimally invasive and gives real time information during the aspiration procedure. TBNA by EBUS were introduced at the RBWH in 2006 and since that time the cytology staff have been involved in the preparation and assessment of specimens collected from the bronchoscopy clinic. At RBWH, TBNA has proven effective in the diagnosis and staging of malignancy. With the introduction of EBUS the lymph nodes within the mediastinal / hilar region of patients with a clinical...
and radiological suspicion of sarcoidosis, became more readily accessible to the bronchoscopists. The cytology specimens identified clusters of epithelioid histiocytes and multinucleated giant cells, with many having no evidence of caseation or necrosis. The early EBUS sampling of these lymph nodes resulted in numerous cytology slides being prepared. Often bronchial washes, bronchoalveolar lavages, endobronchial biopsies, transbronchial biopsies and end papers were also taken making the procedure and the reporting complex and time consuming. However with further experience it is now easy to recognise the features that represent sarcoidosis, resulting in less slides being prepared. Refinement of the procedure has resulted in cell blocks being made routinely instead of endpapers, giving better cellularity and morphology for diagnosis or ancillary tests.

At RBWH these procedures are under review and a study is being conducted to see if on-site cytological diagnosis has the sensitivity and specificity to replace transbronchial biopsy (TBLBx) and endobronchial biopsy (EBBx). This study is still in progress.

<table>
<thead>
<tr>
<th>Ancillary tests used to reach a diagnosis of Sarcoidosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell blocks</td>
</tr>
<tr>
<td>ZN stain</td>
</tr>
<tr>
<td>Grocott’s stain</td>
</tr>
<tr>
<td>BAL total and differential cell count</td>
</tr>
<tr>
<td>Flow cytometry for CD 4/CD 8 subsets</td>
</tr>
<tr>
<td>Serum Angiotensin Converting Enzyme (ACE)</td>
</tr>
<tr>
<td>Microbiology</td>
</tr>
<tr>
<td>QuantiFERON-TB Gold</td>
</tr>
</tbody>
</table>

**CONCLUSION**

While the presence of non caseating granulomas and/or multinucleated giant cells in cytology specimens is suggestive of sarcoidosis, it remains a diagnosis by exclusion requiring a multidisciplinary approach. This involves a typical clinico-radiological presentation and the pathological finding of noncaseating granulomas in cytologic preparations or histological sections. The exclusion of other possible causes, primarily infectious, which may produce non necrotising or minimally necrotising granulomas is also essential.

---

**Figure 6a:** A multinucleated giant cell containing an asteroid body in the cell block - Case 3 (H&E x40)

**Figure 6b:** Another asteroid body in the cell block - Case 3 (H&E x40)
REFERENCES

Ana Bushell (Ibarra) and Deepali Danayak
QML Pathology, Murarrie, Queensland

INTRODUCTION
Acinic Cell Carcinoma is a rare salivary gland cancer arising most frequently in the parotid gland and occasionally occurs bilaterally. It can occur in all age groups, with an even distribution of patients from second to seventh decade. Only 4% of cases occur in patients younger than 20 years old. It also affects women more than men. Patients usually present with a painless mass but tender to touch. The mass may be present for a long duration before being detected because it is usually a slow-growing, low grade (well differentiated) tumour. About 16% of cases of Acinic Cell Carcinoma metastasise to sites such as the lungs and bone. They may also reoccur if primary tumour removal is inadequate. However, Acinic Cell Carcinoma has been identified as the least aggressive of the salivary gland cancers.

CLINICAL HISTORY
A 16 year old female patient presented with a lump below the ear that was present for three months. She reported that the lump felt sore when bumped. The patient had normal facial nerve function, no upper respiratory tract infections and no dental problems. Ultrasound showed an encapsulated mass on the right parotid (Fig 1). An ultrasound guided FNA was performed by a radiologist and the prepared slides (one air-dried and one fixed) were sent to our laboratory.

CYTOLOGY
The direct smears showed a moderately cellular specimen containing cohesive sheets of epithelial cells (Fig 2). The epithelial cells had an abundant slightly granular cytoplasm which was oncocytc like and small inconspicuous nuclei showing a slight degree of pleomorphism (Fig 3 & 4). Cytologically, it was not apparent whether these cells were oncocyes (thus representing a benign oncocytcoma) or benign (anatomical) acinar cells. Based on these findings, the cytology report indicated a benign cellular sample.

Figure 1: An encapsulated mass on the right parotid found on ultrasound.

Figure 2: Pap stain, x40. An Acinic Cell Carcinoma specimen showing cohesive sheets of epithelial cells with central fibrovascular cores. These sheets resemble normal acinar cells in cohesive sheets.

Figure 3: Pap stain, x400. A cohesive sheet of Acinic Cell Carcinoma with cells displaying a high N:C ratio. The nuclei are hyperchromatic and pleomorphic and the cytoplasm are oncocytc like, finely vaculated or granular.

Cont...
A subsequent right superficial parotidectomy was performed and processed histologically. The sections of parotid glandular tissue consisted of a well encapsulated lobulated tumour (dimensions 40 x 35 x 15mm) showing extension of small tumour lobules into adjacent parotid parenchyma in an invasive pattern (Fig 5). The tumour consisted of variable elements including a dominant component showing tubules and nests of cells with amphophilic granular cytoplasm consistent with acinic differentiation (Fig 6). A lymphocytic infiltrate was also present (Fig 7). Based on these histological findings, a diagnosis of Acinic Cell Carcinoma was made. On review of the cytology slides, the subtle features of low grade Acinic Cell Carcinoma were identified.

**DISCUSSION**

Characteristic features of Acinic Cell Carcinoma may be apparent on FNA Cytology. However, this false negative case highlights the difficulty in diagnosing Acinic Cell Carcinoma when only low grade abnormal changes are present. In an aspirate of a benign salivary gland, the specimen will typically show well formed acini (serous or mucinous) associated with ducts set in a fibro fatty connective tissue stroma. The nuclei of the acinar cells are small, round and dark.

In an aspirate with Acinic Cell Carcinoma, the epithelial cells resemble normal acinar cells in cohesive clusters with central fibrovascular cores or in poorly formed microacinar groupings (Fig 2). The nuclei may exhibit some atypia but are usually...
bland and uniform as their normal counterparts, making low grade Acinic Cell Carcinoma difficult to diagnose on cytology. The cytoplasm is either finely vacuolated or dense and oncocyti-like. The differential diagnoses of Acinic Cell Carcinoma include Warthin’s tumour, which shows bland oncocyti-like cells in cohesive, monolayered sheets in a background of many lymphoid cells and granular debris; Mucoepidermoid Carcinoma, which shows variation in cell type with intermediate, squamous and mucin secreting cells (most with abundant cytoplasm) in cohesive clumps and sheets together with small streams of cells within mucus; and Pleomorphic Adenoma, which is a benign neoplasm with characteristic fibrillary chondromyxoid ground substance and spindle shaped ‘mesenchymal’ cells seen mainly in the stromal matrix.

REFERENCES
2. ‘Acinic Cell Carcinoma Overview’ [Online]. Acinic Cell Carcinoma Information Centre.

ACKNOWLEDGEMENTS
Dr Jason Stone, Gwenda Lawrence and Terese Boost.

Cytoletter Guidelines for Contributors

The success of Cytoletter depends significantly on the contributions of members. Please consider submitting Original Articles, Case Studies, Technical Reviews, Letters to the Editor and Book Reviews. Speakers at Branch Meetings could be encouraged to share their presentations with the wider Cytology Community by submitting them to Cytoletter.

Please note:
- Articles must be submitted in electronic format.
- If the article is too large to be submitted by email, contact National Office for an alternative.
- Text must be in Microsoft Word format or equivalent.
- Photomicrographs/photos should be submitted separately and not embedded in the text. .jpg files are preferred. Image size should be double the size it will be reproduced at and the resolution should be 300dpi.
- Tables and/or diagrams should also be submitted separately.
- Referencing should be in Vancouver style, numbered in the order in which references appear in the text (see instructions for Authors in the journals Cytopathology or Diagnostic Cytopathology for details).

Quarterly reports from Branch Secretaries are most welcome and as a guide should include:
- Summary of speakers and topics at meetings held since the last news.
- Proposed future meeting dates, speakers and topics.
- Changes to committee membership, State Councillor, etc.
- Notice of AGM.
- Other news items of particular interest to Branch members.

Email submissions to: jennifer.ross@rcpaqap.com.au
Australian Society of Cytology Inc

42nd Annual Scientific and Business Meeting

5-8 October 2012
Adelaide Convention Centre

Key Note Speaker: Professor Syed Z Ali MD

- Breast FNA and new technologies
- Respiratory update and new terminology
- Lymphoid – where are we now?
  - Effusions
  - Structured Reporting
- HPV update
- Post vaccine issues
- Cancer in young women
- Not so black and white cases
- Panda cytology

Theme: It’s not all black and white

Conference Dinner
“Panda-monium”
Dress Code: Black and White

Tutorial
9–12 October 2012
Pattern Recognition

Registration forms available on the website...
www.cytology-asc.com
Abstracts will appear in the Conference Handbook and will also be published in Cytoletter.

**Content**

Submitted abstracts must be *no more than* 300 words.

**Research projects** should be structured as follows:
1. Title
2. Author(s) and institution(s) – the principle or presenting author should be underlined.
3. Objective - what was the purpose of the study?
4. Methods - brief description of materials, patients/subjects and methods used.
5. Results - what were the main findings?
6. Conclusions - what are the main conclusions or implications of the study?
7. References should be limited to five or less.

**Case studies** should follow the same guidelines but with the following headings:
1. Title
2. Author(s) and institution(s) – the principle or presenting author should be underlined.
3. Clinical presentation
4. Cytological findings
5. Follow-up studies
6. Discussion
7. References

**Presentation**

1. See example available on ASC website.
2. Prefer Microsoft Word, Times New Roman Font, Size 12, single line spacing, left justified.
3. Title should be in capitals at top of the abstract.
4. Author’s names: Qualifications and titles should not be included.
5. Standard abbreviations may be used. Special or unusual abbreviations must be placed in parentheses after the first use of the full word.
6. Spelling is the responsibility of the author.

**Mailing**

*Your abstract can be forwarded on CD to:*
Cheryl Edgton
Australian Society of Cytology Inc
PO Box 491
NORTH ADELAIDE SA 5006

*Or electronically by email attachment to:*
national.office@cytology-asc.com

PLEASE COMPLETE THE FOLLOWING AND SUBMIT WITH CD OR PROVIDE THE DETAILS WITH YOUR EMAIL ATTACHMENT:

*Title of Paper: ........................................................
.............................................................................
Address for correspondence: ...............................*

Tel: ........................................................................

☐ Oral presentation
☐ Poster presentation
☐ Either

*Closing date: 30 July 2011*

**CD-ROM AUTHORS WANTED**

The ASC Board of Education is looking for expressions of interest in authorship of CD-ROM titles in the ASC Continuing Education Sets. We require titles in Gynaecological, Non-gynaecological and Fine Needle Aspiration Cytology. For further information, (written guidelines are available) please contact:

**Grant King, CD-ROM Coordinator**
Australian Society of Cytology
PO Box 491
NORTH ADELAIDE SA 5006
Phone: 08 8222 6708 Email: grant.king@health.sa.gov.au
The Best Quality Control (QC) Measure to Avoid a High Grade Review

Ann Wong-Lee.
Department of Cytology, Laverty Pathology, Sydney, Australia

INTRODUCTION
For many years, Laverty Pathology (LP) has been using rapid re-screening (RRS) as one form of QC measure for the Pap tests signed out as “Negative for Malignancy”. As only a small portion of the whole slide is examined by RRS, I was curious to see if RRS really works.

AIM
The aim of this study was to determine the effectiveness of RRS as a form of QC measure in Pap tests by comparing the 4 QC measures used in 2005 at LP:

1. Full re-screening (FRS) – where the entire slide is fully screened a second time based on abnormal clinical history and symptoms or when the primary report is unsatisfactory
2. RRS – around 40 random fields of view (FOV) are assessed on a conventional Pap smear (CON)
3. Checking – an experienced senior cytologist checks abnormal cases prior to possible reporting by a pathologist
4. Paired ThinPrep screening [TPCON] – at LP, the paired TP and CON are screened independently of each other by two cytologists. The reports are then combined. Discrepancies are investigated prior to the final report being issued.

METHOD
All Pap tests received in 2005 in LP formed the base for this study. Only cervical Pap tests were selected. Subsequent 3-year cervical biopsy follow-up information had been retrieved from the Pap Test Registry to check if the patient’s follow-up showed a biopsy confirmed cervical high grade (HG) lesion. The information was analysed to determine which of the 4 QC measures was more effective in avoiding a high grade review (HGR). (HGR = cases signed out as negative but where the biopsy showed HG changes within a 3-year follow-up period.)

A point system consisting of merit points and demerit points was used to compare the efficiency of all QC measures:

- 1 merit point was given when a HGR was averted
- 1 demerit point was given when QC resulted in a HGR

For **full re-screening**, the merit/demerit system was defined as:

- **Merits** for cases upgraded from negative after FRS, including CON or TP re-screened due to an abnormality being found in one of the paired specimens. (NB: This sample population was not random and there may be bias when performing the task.)
- **Demerits** for cases which remained negative after FRS but on review were abnormal/unsatisfactory and for cases upgraded to negative from unsatisfactory but on review were unsatisfactory/abnormal

For **rapid re-screening**, the merit/demerit system was defined as:

- **Merits** for cases upgraded from negative following RRS and where the subsequent biopsy showed high grade changes
- **Demerits** for cases which remained negative following RRS but on HGR were abnormal/unsatisfactory

For **checking**, the merit/demerit system was defined as:

- **Merits** for cases upgraded from negative where the subsequent biopsy showed high grade changes, excluding those found by RRS and FRS
- **Demerits** for cases downgraded to negative but on review were abnormal/unsatisfactory and for all negative cases that remained negative after checking but on review were abnormal/unsatisfactory

Cont...
For TPCON, the merit/demerit system was defined as:

- **Merits** when an abnormality was only found on TP, excluding where the paired CON was unsatisfactory and when CON was upgraded to abnormal following re-screening due to a paired abnormal TP.
- **Demerits** when an abnormality was only found on CON and when TP was upgraded to abnormal following re-screening due to a paired abnormal CON. Also when a negative TPCON report was issued but on high grade review was abnormal/unsatisfactory and when CON was unsatisfactory but TP was negative.

Two parameters – Effectiveness coefficient (EC) and MD ratio, were used for comparison. The formulae used in the evaluation were as follow:

- Effectiveness coefficient = (Merit points – Demerit points)/Sample Size
- MD ratio = Merit points/Demerit points

### RESULTS

<table>
<thead>
<tr>
<th>QC Measures</th>
<th>FRS</th>
<th>RRS</th>
<th>Checking</th>
<th>TPCON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merits</td>
<td>95</td>
<td>39</td>
<td>24</td>
<td>152</td>
</tr>
<tr>
<td>Demerits</td>
<td>4</td>
<td>10</td>
<td>15</td>
<td>51</td>
</tr>
<tr>
<td>Sample Size</td>
<td>131</td>
<td>116</td>
<td>1556</td>
<td>865</td>
</tr>
<tr>
<td>Effectiveness Coefficient</td>
<td>0.695</td>
<td>0.25</td>
<td>0.006</td>
<td>0.116</td>
</tr>
<tr>
<td>MD Ratio</td>
<td>23.75</td>
<td>3.9</td>
<td>1.6</td>
<td>2.98</td>
</tr>
</tbody>
</table>

Table 1: Comparison of all Quality Control Measures

### DISCUSSION

During 2005 in the Cytology Department of LP, more than 77,000 cervical Pap smears had been rapid re-screened. The total time taken to perform the task was almost 148,000 minutes. High grade smears (1.08% of all the smears that had been rapid re-screened) had been regularly “seeded” into the routine work to be rapid re-screened, to monitor the efficiency of the procedure. 86% of the seeded HG smears had been detected by RRS.

The daily average time to rapid re-screen a smear ranged from 1.13 to 3.8 minutes. (NB: According to the literature, the optimum time for doing RRS ranges from 0.5 to 2 minutes per slide.) The daily average “RRS” time per slide exceeded 2 minutes in 91 days out of 254 working days in 2005. Possible explanations for having a longer RRS time include the reviewer’s awareness of the presence of seeded HG smears; certain reviewers being too sensitive and interruption during the process. The total time spent on the procedure translated to a full-time cytologist working for 1.35 years. (NB: In 2005, Laverty Pathology had 5 part-time and 26 full-time cytologists, excluding 2 on maternity leave.) As with any laboratory task, there must be a balance between efficiency, cost, effectiveness and the validity of the results of the task. Does RRS warrant ticking all of the boxes? Based on the results of this study, it was found that FRS is the best QC method to avoid a retrospective HGR. RRS is the best alternative and is equally as effective as TPCON if not better. Checking is the most risky procedure involving much decision making and therefore is the least favourable procedure. (Figure 1)

As we all know, FRS involves additional human resources and is time consuming. RRS is less time consuming and imposes no extra cost to the patient when compared with TPCON. Therefore, RRS is a cost effective and time worthy procedure, and should be used in a daily base especially for...
CONCLUSION
Full re-screening is the best QC method to avoid a retrospective HGR but involves additional human resources and is more time consuming. Rapid re-screening (with training) is the best alternative and less time consuming.

ACKNOWLEDGEMENT
I would like to thank Dr Merle Greenberg and Mr Ron Bowditch for their encouragement and Ms Joanne Clarke for her valuable advice and time with enormous support.

REFERENCES
1. Roberts JM, Thurloe JK, Bowditch RC. A three-armed trial of the Thinprep Imaging System. Diagnostic Cytopathology, vol 35, No 2
2. Clarke J, Thurloe JK, Bowditch RC, Roberts JM, Hyde SG, Greenberg M, Clarke J, Biro C. Assuring the quality of quality assurance – Seeding abnormal slides into the negative Papanicolaou smears that will be rapid rescreened. Cancer Cytopathology 2008: 294-299
3. Bowditch RC. Bias: the problem of unreliable perception and judgement. Ron Bowditch FOCUS 2010

NEW MEMBERS

New South Wales
Mrs Rachelle Kay Baird
Mrs Cigdem Izgi
Dr Lianne Ling Lee

Queensland
Miss Kerryn Maree Buchanski
Mrs Elissa Greenhalgh
Miss Amy Louise Hassum
Miss My-Linh Hoang-Xuan
Ms Naila Jamil
Dr Henry Lau
Mr Bill Stathopoulos
Mrs Nga Thi Thanh Tran

Saudi Arabia
Ms Goranka Cular

South Australia
Ms Cheryl Kay Austin
Mrs Soula Rasic
Miss Aphroditi Skeklios

Tasmania
Ms Rebecca Madge
Mr Phillip Ninness

Victoria
Ms Sarah Bowen
Miss Kathryn Clapperton
Miss Ebony Lee Forrest
Miss Yu-Lin Ko
Ms Stojica Pekez
Miss Rebecca Pham
Miss Jennifer Tomelden

Western Australia
Dr Bibiana Siew Hui Tie
Mr Mark Anthony Warwick
A number of new initiatives were introduced this year to improve compliance and enhance the professionalism of the Scheme.

A random audit of participants was undertaken to determine adherence to requirements and obtain feedback on ways to improve the Scheme. All participants selected for audit (eleven in total) satisfied the requirements of the Scheme based on the data submitted, the range of educational activities covered and general standard of documentation. The audit revealed that some participants are not downloading a new copy of the spreadsheet each year but are copying existing templates on their hard drive. This action prevents automated totalling of credits which is designed to make your task easier. In addition, participants are reminded that credits must be acquired from a minimum of four categories (excluding employment) in any one year. I concede that the published guidelines are not clear on this point and will be updated. The original intent of this requirement was to encourage participation in a greater range of learning activities. The audit also revealed a reliance on what could be termed “passive” learning activities, where participants attend seminars, workshops and multi-header sessions given by others. These are important, but self-directed learning activities such as reading peer review journals and texts, appear under represented, despite the Scheme being improved to facilitate easier recording of such activities. Keeping abreast of the scientific literature is an important component of our professional development.

The second initiative introduced this year was the Participant Report. These were forwarded to in-house co-ordinators and listed staff who are active members of the Scheme. The report is designed to assist laboratories satisfy accreditation requirements of NATA and other regulatory bodies. Some errors were noted in the listings. It is essential that you notify the ASC if you have changed employers so that we can update the database. In future the report will also be sent to the designated Head of Cytology of your laboratory and registration and renewal forms will be updated to collect this information.

Following an upgrade of computer facilities at the ASC office, we are now able to retrieve more accurate information on participation rates. Unfortunately, this participation still falls short of expectations. Currently we have 552 non medical and associate members of the ASC. Of these, 443 or 80% are registered with the Scheme. However, only 207 of the 443 registered participants (47%) submitted data for last year. As a proportion of the eligible membership, 37% actively participate in the Scheme.

The Board of Education is committed to improving on this participation level and some strategies have already been discussed. A number of larger laboratories have their own in-house schemes but it may be possible to “map” their data to the CEC Scheme. This will facilitate peer review comparisons and consistency across laboratories. It is also hoped that the new revamped Scheme will further encourage members to register and submit data on an on-going basis.

Mark Stevens
CEC Registrar

---

Medlab Pathology, Sydney
Full Time or Part Time Position

Medlab Pathology is the largest privately owned Medical Pathology Company in NSW providing an ethical diagnostic service.

Our busy Cytology Department is seeking a highly motivated cytologist to join our friendly team of health professionals. Duties include screening of gynaecological and non-gynaecological cytology specimens.

To be considered for this role, you must hold a relevant tertiary qualification in medical laboratory science or equivalent, as well as the CT(ASC). The successful applicant(s) will have a strong commitment to customer service, have a focus on detail and quality, and have the ability to work independently and in a team environment.

Attractive salary package will be based on qualifications and related experience.

Contact

Please address enquiries and applications to
William Chen at:
Medlab Pathology
3-5 Rawson Street
AUBURN NSW 2144
Phone: 02 8745 6512
Email: wchen@medlab.com.au
Cytoquiz - What do you see?

Marilyn Betchley
Adelaide Pathology Partners

“Until scrutinised on a higher magnification, groups and sheets of cells may look deceptively similar.”

Case 1

Case 2

Case 3

Cont...
...from previous page

Case 4

Case 5

Case 6

Cont...
Answers will be published in the September edition of Cytoletter. Ed.
Branch News

Queensland

The Queensland branch has had a great start to the year. In March, Vanessa Thompson and Jenny Ross presented at our first meeting for 2012 at Sullivan & Nicolaides Pathology. The topic “Monitoring Performance in EQA – a helping hand to laboratories” was very interesting. They gave us an insight into the new review system to be implemented by the RCPA QAP. The proposed aim is that a more timely feedback system to laboratories and NATA will ensure a consistently high level of quality assurance is maintained in gynaecological cytology reporting.

Our second meeting was in April also at SNP, and what a turn out. With record numbers in attendance, we were fortunate to have three fantastic speakers. Dr Bryan Knight (QML Pathology) opened the evening presenting “Reporting thyroid FNA’s the Bethesda Way”. Dr Knight explained the Bethesda system for reporting thyroid cytology, the categories used and the recommendations assigned to each category. Dr Kris Kerr (SNP) presented “An Exception to the Rule”. Dr Kerr explained that “lesions don’t read text books” comparing follicular adenoma and minimally invasive Follicular Carcinoma (Macrofollicular variant) to illustrate this point. Dr Linda Shen (PA Hospital) presented “RBWH Thyroid FNA reporting 2011-2012”. RBWH is the only laboratory in Queensland currently using the Bethesda system to report thyroids. Dr Shen shared statistics and used a few case studies to highlight the application of the Bethesda system. Dr Bryan Knight concluded the evening with “Papillary Carcinoma of the thyroid” and “Genetic alterations in thyroid cancer”. Thank you to our speakers for making the evening such a success.

Our upcoming events include:

19/ 20 May: Pre-exam Tutorial at QML
18 July: Annual General Meeting and Oral Presentation Competition at QML
1 September: Scientific Presentation at RBWH Education Centre – Herston. “Cervical Screening and HPV” - Presenters include Dr Annabelle Farnsworth, Prof. Suzanne Garland and Dr Andrea Garrett.

November: Dinner meeting - TBA

I would like to take this opportunity to wish the exam candidates all the very best for the CT(ASC) exam and I look forward to seeing you all at the above listed events.

Lee Cadoo
Acting Queensland Branch Secretary

Victoria

The Victorian Branch held their first scientific meeting for 2012 at the Peter MacCallum Cancer Centre on Thursday 23 February where Grace Tan (VCS) presented Squamous Cell Changes in Cervical Cytology – Learning from Our Mistakes.

A joint HGV/ASC meeting was held at the Peter MacCallum Cancer Centre on Thursday 22 March, where Histology and Cytology students from RMIT gave a series of short presentations. There were 3 cytology speakers; Joan King presented A Case of Seriously Cys tici Ovary, Linda Lu presented The Mighty Mimicker and Vi Trinh presented The Curious Case of Cryptococcus.

An Effusion Cytology Workshop was held at The Royal Dental Hospital of Melbourne on Saturday 28 April. Associate Professor Elizabeth Salisbury (PoWH) discussed both benign and malignant entities and stressed the importance of approaching effusions in a logical and systematic way. She very generously shared her experience and expertise by providing many hints as to how to achieve an accurate and reproducible morphological interpretation.

We would like to extend our thanks to our presenters over the past few months for donating their time and efforts in supporting the continuing education of our members. All of our meetings for this year have had a great turnout.

Our future meetings for 2012 are as follows:

Wednesday 20 June First Time Presenters
Thursday 30 August AGM and Pathologist FNA Presentations

Elizabeth Shao
Victorian Branch Secretary

Cont...
Branch News

Australian Capital Territory

On 29 March 2012, Dr Jane Dahlstrom gave a comprehensive presentation on “Common Issues in Immunohistochemistry”. The presentation covered:

- Background of immunohistochemistry;
- Clinical importance of immunohistochemistry;
- Common issues:
  - Pre analytical;
  - Analytical;
  - Post analytical;
- Problems and solutions;
- Antibody type – polyclonal and monoclonal;
- Methods of antibody retrieval; and
- Interpretation of staining pattern and choice of antibody.

We would like to thank Dr J Dahlstrom for her very informative and interesting presentation.

Monika Stanczew
ACT Branch secretary

New South Wales

The NSW ASC Branch held its first branch meeting for 2012 on Wednesday 7 March at Royal Prince Alfred Hospital. We were fortunate enough to have Vanessa Thomson, a Project Officer and Jenny Ross, the Cytopathology Program Manager, both from the RCPA Quality Assurance Program to present to us on the topic: “Performance Monitoring Project in EQA - a helping hand to laboratories”. This presentation was very informative and thought-provoking and focused on the background scope of the project, retrospective data analysis and how the criteria were established. It also examined the collaboration between NATA and the Department of Health & Aging as well as the QAP proficiency testing including the evaluation and development of KPI pathology.

The next scientific branch meeting was also held on Tuesday 27 March at BD Diagnostics. The topic presented was: “Case presentations in Non-Gynae Cytology using SurePath” and this was given by Associate Professor of Pathology Dr. Bill Tench from California. This was an interesting presentation which explored the advantages of SurePath, its technical considerations and the principles of preparation of non-gynae specimens.

Following this, the NSW ASC Branch held our most anticipated Pre Exam Cytology Refresher Workshop, which was held at the University of Sydney, Blackburn Building. The workshop was well attended with 31 registrants and included Cytologists, Registrars and Pathologists. The workshop ran over three days, the first two covered a large variety of non-gynae topics such as liver, pancreas, effusion cytology, respiratory, salivary gland, lymph node, urine, thyroid and breast with interactive quizzes after each session. The third day was focused on gynae cytology covering squamous and glandular lesions of the cervix, also with an interactive quiz style session, the cervical screening program components and review of Thin Prep/Imaging system. The speakers for this workshop were brilliant in their presentations, providing such educational, informative, comprehensive lectures and certainly an entertaining atmosphere.

The workshop concluded with questionnaires for the registrants. We would appreciate constructive feedback as this input is valuable to us and enables us to improve and enhance the workshop for the future participants. The questionnaire included specific questions on all presentations and speakers and we encourage all participants to give an honest appraisal of the workshop overall.

The NSW ASC Branch would like to thank all the speakers for their valuable time, expertise and efforts in making this a great workshop.

A special thank you to Debbie Ekman for her dedication, time and hard work with organising this workshop, it was a success and we greatly appreciate it. We also thank and acknowledge...
**Branch News**

the sponsors – Douglass Hanly Moir Pathology, Hologic (Australia) and Qiagen for supporting our continuing education as well as Jane at Howden Medical Books for compiling a list of available relevant texts and offering a discount to workshop attendees.

For those preparing to sit the ASC Exam this year in June, we wish you the very Best and Good Luck!! The ASC Exam is held in Sydney and Adelaide for this year. In Sydney the exam venue is Douglass Hanly Moir, and is held on Saturday 23 and Sunday 24 June 2012. Look out for any changes and news regarding the exam on the ASC website.

Upcoming Meetings:
We are excited and pleased to announce the following scientific meetings for the year:
16 May: Thyroid FNA and Australian perspective on the Bethesda system given by Dr. Priyanthi Kumarasinghe at Royal Prince Alfred Hospital
13 June: FNA Lymph Node presented by Dr. Bill Geddes at the Garvan Institute, St Vincents Hospital, which coincides with Dr Andrew Field’s Advanced FNAB Cytology Tutorial.
We encourage all members to attend these meetings as it is an educational opportunity and also a good chance to catch up with Cytology friends and peers.
Please do not hesitate to contact the NSW ASC Committee with any queries at: mkumar@stvincents.com.au

**Martina Kumar**
NSW Branch Secretary

**South Australia**

The SA ASC branch held its first meeting of the year on Tuesday 6 March at the IMVS. We were fortunate enough to have some of the local pathology registrars present some interesting topics and case studies. The evening was a real success with such high quality presentations, that it has been proposed that it should become an annual event.

The next scientific meeting is being held at Adelaide Pathology Partners in May at which Dr Steve Pieterse and Dr Anna Simpson will present “Immunohistochemistry”.

Upcoming meetings include:
SA branch AGM August 2012
IMVS (Frome Road) November 2012
Healthscope March 2013
QEH May 2013
The SA branch will be hosting the ASC exam in June and the Annual Scientific Meeting, Tutorials and IAC exam in October. We would like to wish all of our local candidates best of luck with their upcoming examinations.

**Joni Mullan**
SA Branch Secretary
# Meeting Calendar

## 2012

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 June</td>
<td>International Academy of Pathology - Aust Division ASM</td>
<td>Sydney</td>
</tr>
<tr>
<td>4-8 June</td>
<td>First Sydney Advanced Fine Needle Biopsy Cytology Tutorial</td>
<td>Sydney</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:afield@stvincents.com.au">afield@stvincents.com.au</a></td>
<td></td>
</tr>
<tr>
<td>7-9 July</td>
<td>Focus Tutorial</td>
<td>Sydney</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:joanne.clarke@laverty.com.au">joanne.clarke@laverty.com.au</a></td>
<td></td>
</tr>
<tr>
<td>8-11 July</td>
<td>EUROGIN 2012</td>
<td>Prague</td>
</tr>
<tr>
<td>8-12 September</td>
<td>European Congress of Pathology</td>
<td>Prague</td>
</tr>
<tr>
<td>24-27 September</td>
<td>AIMS National Scientific Meeting</td>
<td>Darwin</td>
</tr>
<tr>
<td>30 Sep - 3 Oct</td>
<td>European Congress of Cytology</td>
<td>Dubrovnik</td>
</tr>
<tr>
<td>30 Sep - 5 Oct</td>
<td>XXIX Congress of the International Academy of Pathology</td>
<td>Cape Town</td>
</tr>
<tr>
<td>7-12 October</td>
<td>FIGO World Congress of Gynaecological and Obstetrics</td>
<td>Rome</td>
</tr>
<tr>
<td>5-8 October</td>
<td>Australian Society of Cytology National Scientific Meeting</td>
<td>Adelaide</td>
</tr>
<tr>
<td>9-12 October</td>
<td>Australian Society of Cytology Tutorials</td>
<td>Adelaide</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.cytology-asc.com">http://www.cytology-asc.com</a></td>
<td></td>
</tr>
<tr>
<td>23-26 October</td>
<td>Sydney International Breast Cancer Congress</td>
<td>Sydney</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.rcpa.edu.au">http://www.rcpa.edu.au</a></td>
<td></td>
</tr>
<tr>
<td>30 Nov - 6 Dec</td>
<td>International Papillomavirus Conference</td>
<td>Puerto Rico</td>
</tr>
</tbody>
</table>

## 2013

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-27 February</td>
<td>RCPA Pathology Update</td>
<td>Melbourne</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.rcpa.edu.au">http://www.rcpa.edu.au</a></td>
<td></td>
</tr>
<tr>
<td>2-5 May</td>
<td>Aust Soc for Colposcopy and Cervical Pathology Scientific Meeting</td>
<td>Wellington</td>
</tr>
<tr>
<td>25-29 May</td>
<td>International Congress of Cytology</td>
<td>Paris</td>
</tr>
<tr>
<td>18-21 October</td>
<td>Australian Society of Cytology National Scientific Meeting</td>
<td>Sydney</td>
</tr>
<tr>
<td>22-25 October</td>
<td>Australian Society of Cytology Tutorials</td>
<td>Sydney</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.cytology-asc.com">http://www.cytology-asc.com</a></td>
<td></td>
</tr>
</tbody>
</table>
IAC SLIDE SETS

1 Problems in Cytodiagnosis Female Genital Tract
2 Aspiration Biopsy Cytology of head & neck
3 Aspiration Biopsy Cytology of the breast
4 Cytology of normal epithelia and benign proliferative
to reactive reactions of the uterine cervix
5 Cytology of Dysplasia, Carcinoma in situ and adhesive
carcinoma of the uterine cervix
6 Cytology of normal epithelia and benign proliferative
7 Human chromosomes and chromatin
8 Hormonal Cytology
9 Cytology criteria for differentiation of benign, dysplastic
9 and malignant changes of uterine cervix
10 Cytology of uterine adenocarcinoma
11 Look-alikes in Gynaecologic Cytology
12 Gynaecologic Endocrinopathies
13 Oral Cytology
14 Pulmonary Cytology
15 Cytology of Effusions and its Histologic Basis
16 Cytology and Histology of ionising radiation on the female
18 genital tract
19 Cytologic specimens obtained by the brush technique
19 (respiratory tract)
20 Respiratory Cytopathology
21 Self-evaluative test in Cytology for Pathologists
22 Cytology of the Urinary Tract and its histologic basis
23 Gastric Cytology
24 Cytology of the Cerebrospinal Fluid and its histologic basis
25 Look-alikes in the Cytology of the respiratory tract and
serious effusions
26 Cytologic diagnosis of opportunistic infections: Fungi and higher bacteria
27 Phase contrast microscopic Cytologic diagnosis: A
28 Gynaecological procedure
29 Cytopathology of soft tissue and bone tumours
30 Condylomata of the Uterine Cervix: A human
31 PAPILLOMAVIRUS infection - Cytology, Histology,
32 Ultrastructure, Immunochemistry & Differential Diagnosis
33 Cytology of inflammatory reactions, effect of IUD,
34 contaminants and microbiologic classification including
35 chlamydidal organisms (female genital tract)
36 Techniques for electron microscopy in human tissues
37 Cytology in pregnancy
38 Endometrial aspiration and other Cytologic techniques for
39 the detection of endometrial cancer and its precursors
40 Needle aspiration biopsy Cytology of the head and neck 1.
41 Lymph nodes and salivary glands
42 Needle aspiration biopsy Cytology of the head and neck 2.
43 Thyroid, soft tissue, bone and miscellaneous conditions
44 Fine needle aspiration of the prostate gland
45 Vulvar cytology
38 Cytopathology of Aids
39 Paediatric cytopathology
40 Broncoalveolar lavage in diagnostic cyto
41 Basic colposcopy
42 Cytology of tissue repair & differential diagnosis
43 Atypical Squamous & Glandular Lesions of the Cervix
44 Thyroid Fine Needle Aspiration Cytopathology
45 Thin Layer Slides in the Laboratory Routine for Pap tests

NEW PURCHASES

The Society has received new copies of the following sets. They are
all volumes which have been updated since the sets were originally
produced. VOLUMES 10, 11, 12, 15, 18, 22, 25, 28, 30

KODACHROME NOTES FROM THE 1991 ASM

A Cytology in the Detection and Monitoring of Bladder
A Neoplasms: William M Murphy, MD
B Fine Needle Aspiration of Lymphoma and Reactive
B Hyperplasia: Ruth L Katz, MD
C Fine Needle Aspiration of Adrenal, Kidney and
C Retroperitoneum: Ruth L Katz, MD

CD ROM

Body Fluids: C Kjeldsberg and Knight, 1996
The Art & Science of Cytopathology: RM DeMay

BOOK

1002 Multiple Choice Questions in Cytopathology with Answers
by Katherine Cordatos

$11.00 per slide set/Multiple Choice Book
$50.00 per CD Rom

One item per loan (please nominate second choice)

Requests for loans should be made on the FORMS page of this Cytoletter.

Future CT(ASC) Examination Venues

2012 Sydney and Adelaide
2013 Brisbane and Perth
2014 Melbourne and Adelaide

Guidelines and Application Form available from the ASC Office or website
www.cytology-asc.com
CT(IAC) and FIAC information and forms from www.cytology-iac.org

28 June 2012 CYTOLETTER
### CONTINUING EDUCATION CD ROM SETS

**TAX INVOICE/ORDER FORM**  
**Date:** ____________________________________  

**Cost per Title:** $50.00AUD (Includes postage within Australia)

<table>
<thead>
<tr>
<th>TITLE</th>
<th>COPIES</th>
<th>UNIT COST</th>
<th>GST</th>
<th>COST</th>
</tr>
</thead>
</table>
| 1 Respiratory Cytopathology  
*by Mark Stevens* | | $45.45 | $4.55 | |
| 2 Endocervical Cytopathology  
*by Marilyn Betchley and Lesley Smith* | | $45.45 | $4.55 | |
| 3 Normal and Benign Cervical Cytopathology  
*by Deborah Reich, Dr Gabriele Medley and Grant King* | | $45.45 | $4.55 | |
| 4 Postirradiation Cervicovaginal Cytology  
*by Paul Shield* | | $45.45 | $4.55 | |
| 5 Cervical Cytology Self Assessment Quiz  
*by Paul Shield, Bernadette Tanner and Grant King* | | $45.45 | $4.55 | |

**SUBTOTAL**

| Postage and handling (International Orders only) | $20.00 | - |
| All overseas payments must be in Australian Dollars. | | |

**ORDER TOTAL**

---

### CEC REGISTRATION

Please register me with the CEC Scheme  
Preferred diary format:  
☐ Paper  
☐ Excel Spreadsheet  

Upon registration it is my responsibility to furnish details of my yearly CEC activity to the Registrar

Your Laboratory CEC Coordinator: ________________________________________________________________

Your Laboratory Head of Cytology: ________________________________________________________________

If you are not an ASC member, enclose annual CEC subscription fee of $170.00

---

### LIBRARY - LOAN REQUEST

<table>
<thead>
<tr>
<th>Title 1st Choice:</th>
<th>Title 2nd Choice:</th>
</tr>
</thead>
</table>

First Name: ___________________________  
Surname: _____________________________

Address: (residential)  
Address: (work/laboratory)

Member of the ASC?  
Yes ☐  
No ☐ *(Please tick)*

Preferred Address  
Home ☐  
Work ☐

Telephone: ___________________________  
Email: ______________________________

**PAYMENT DETAILS:** Enclose Cheque or Money Order made payable to Australian Society of Cytology Inc. OR

Debit my ___ Visa ___ Mastercard *(Please tick)*  
Card Verification Code ____/____/______  
For $ ______________

Card Number: ___________________________  
Expiration: ________/______

Name on card: ___________________________  
Signature on card: ______________________

Return this form to:  
Australian Society of Cytology Inc  
PO Box 491  
NORTH ADELAIDE  SA  5006  
national.office@cytology-asc.com  
fax: 08 8361 7357
APPLICATION FOR MEMBERSHIP

(Please use block letters)

<table>
<thead>
<tr>
<th>TITLE (Dr/Mrs/Ms/Miss/Mr):</th>
<th>SURNAME:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIVEN NAMES:</td>
<td>DOB: / /</td>
</tr>
<tr>
<td>LABORATORY:</td>
<td></td>
</tr>
<tr>
<td>PREFERRED ADDRESS:</td>
<td>POSTCODE:</td>
</tr>
<tr>
<td>OTHER ADDRESS:</td>
<td>POSTCODE:</td>
</tr>
<tr>
<td>BH PHONE:</td>
<td>FAX:</td>
</tr>
<tr>
<td>MOBILE:</td>
<td></td>
</tr>
<tr>
<td>EMAIL:</td>
<td></td>
</tr>
</tbody>
</table>

QUALIFICATIONS Please attach copies to your application

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CYTOLOGY EXPERIENCE:

PROPOSER AND SECONDER (must be either Medical or Non-Medical financial members of the Society).

<table>
<thead>
<tr>
<th>PROPOSER:</th>
<th>SIGNATURE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECONDER:</td>
<td>SIGNATURE:</td>
</tr>
</tbody>
</table>

APPLICATION AND DECLARATION

I apply for the following class of membership (please tick):

**MEDICAL**
Registered medical practitioners who engage in the practice of Cytology.

**Specialist Total $252.00** (entrance fee $20, annual subscription $209.09, GST $22.91)

**Registrar Total $202.00** (entrance fee $20, annual subscription $163.64, GST $18.36)

**NON MEDICAL**
Graduates of a degree course in Medical Laboratory Science (or its equivalent) from a recognised tertiary institution or persons who hold the CT(ASC) or an equivalent qualification, who are not registered medical practitioners but who engage in the practice of Cytology.

**Total $202.00** (entrance fee $20, annual subscription $163.64, GST $18.36)

**ASSOCIATE**
Persons interested in Cytology not eligible to be Medical or Non-Medical members.
Associate members do not have the right to vote in the affairs of the Society, but may participate in all other activities of the Society.

**Total $142.00** (entrance fee $20, annual subscription $109.09, GST $12.91)

SIGNATURE: DATE: / /

PAYMENT DETAILS: Enclose Cheque or Money Order made payable to Australian Society of Cytology Inc. OR Debit my ___ Visa ___ Mastercard (Please tick) Card Verification Code___/___/___ For $ __________

Card Number [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] Expiry [ ] [ ] [ ] Name on card: __________________________ Signature on card: __________________________

Return this form to: Australian Society of Cytology Inc or national.office@cytology-asc.com
PO Box 491
NORTH ADELAIDE SA 5006

Applicants from overseas are not required to pay GST.

UPDATED JUNE 2012

30 June 2012 CYTOLETTER
Gynaecological Cytology Courses 2012

At Victorian Cytology Service we specialize in gynaecological cytology. One of our corporate objectives is “To train scientists and pathologists”. VCS provides short courses in gynaecological cytology for cytopathologists and scientists/cytotechnologists.

Cytology 5 Day Refresher Course ($1,250)
Monday 16th July – Friday 20th July 2012
Using both conventional and liquid based cytology slides, the following topics are covered:
- Normal & Unsatisfactory
- Benign Changes & Low Grade Squamous Intraepithelial Lesions
- High Grade Squamous Intraepithelial Lesions
- Glandular Lesions
- Cancer

Advanced Cytology 5 Day Course ($1,650)
Monday 23rd July – Friday 27th July 2012
Using both conventional and liquid based cytology slides, the following topics are covered:
- High Grade Squamous Intraepithelial Lesions (HSIL)
- Glandular Lesions
- Quality Assurance

These courses are held at the Victorian Cytology Service in Carlton, Victoria and have been structured to suit both cytotechnologists and pathologists. If you would like more information regarding the course content and cost please contact:

Denise Walsh
Assistant to the Executive Director
Victorian Cytology Service Incorporated
PO Box 178
Carlton South VIC 3053
Tel (03) 9250 0322  Fax (03) 9349 1949
E-mail: dwalsh@vcs.org.au

Hologic™ now offers The Total Cervical Screening Solution

Product news
Hologic™ is excited to announce the successful integration of the ThinPrep® 5000 Processor into laboratories across Europe. We have also added to our ThinPrep Imaging System with the new Review Scope Manual Plus option.

Hologic™ is delighted to receive FDA approval for its recently launched Cervista™ HPV High Risk Test
- Cytology laboratory compatible
- Easy to use with 4 hour walk away time
- Detection of 14 high risk HPV types
- Internal control reduces false negatives

To learn more about these exciting products contact
australia@hologic.com

www.cervistaHPV.com
www.cytologystuff.com
www.hologic.com
Cytomorphological features in the diagnosis of Sarcoidosis

A Rare Malignancy of the Salivary Gland

The Best Quality Control (QC) Measure

Specifications
Capacity: 40 samples/tray, 4 trays/pack, 160 samples/pack
Size: L 44cm, W 27cm, H 8.5cm (single), 32cm (quad stack)

Interlocking, stackable trays for compact vial storage
- Easy access for sample retrieval, trays constructed from durable, solid plastic
- Upright storage for up to 40 ThinPrep® vials per tray
- Compatible for use with the ThinPrep 5000 with AutoLoader
- Identification label holder at the front of each tray

Hologic (Australia) Pty Ltd
Call Toll Free: 1800 264 073