Volume 49 Number 2 May 1995 ISSN 1171-0195

New Zealand Journal of

Medical Laboratory Science

Official Publication of the New Zealand Institute of Medical Laboratory Science Incorporated

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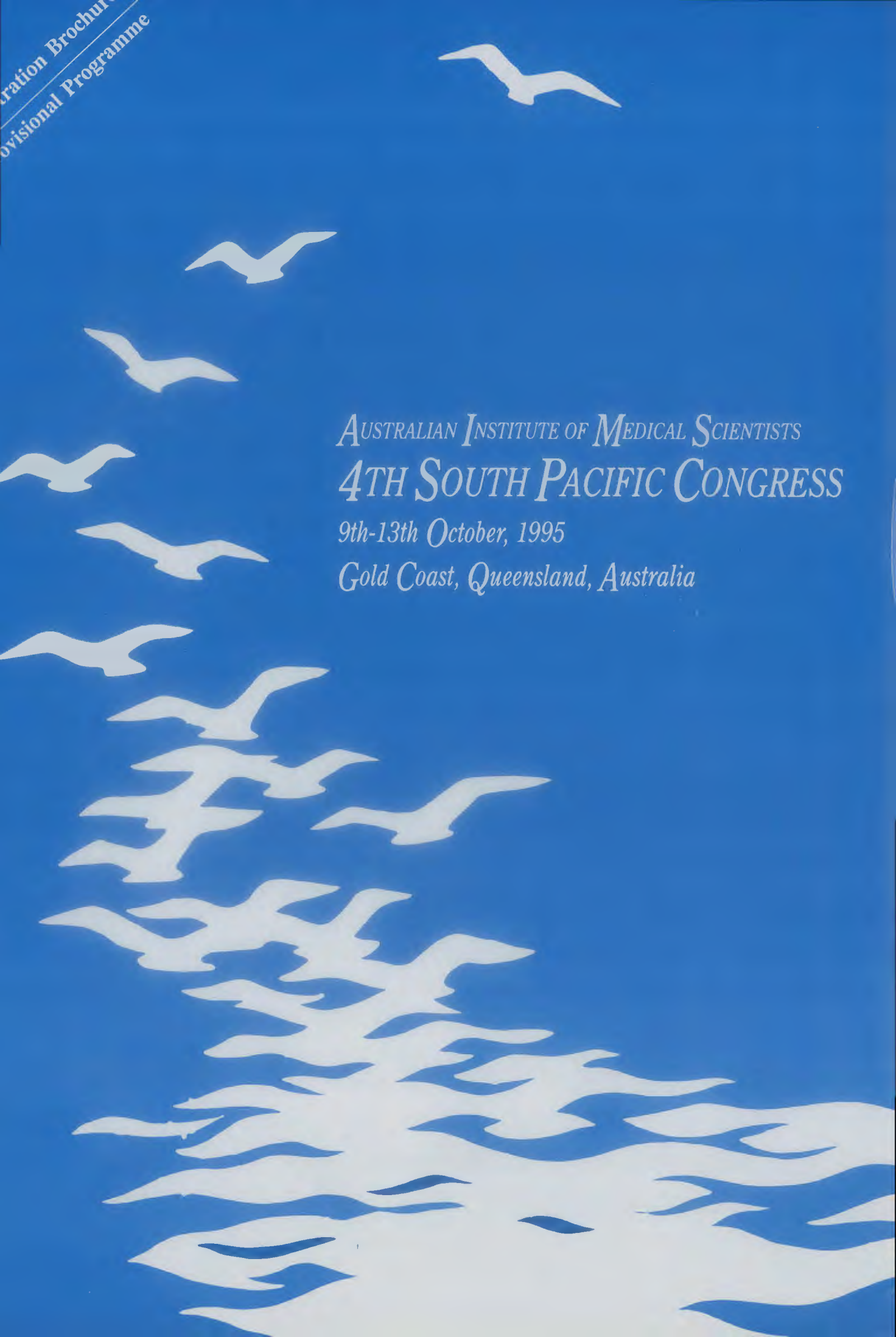

AUSTRALIAN INSTITUTE OF MEDICAL SCIENTISTS

4TH SOUTH PACIFIC CONGRESS

9th-13th October, 1995

Gold Coast, Queensland, Australia

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AUSTRALIAN INSTITUTE OF MEDICAL SCIENTISTS
NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENTISTS

4TH SOUTH PACIFIC CONGRESS

9–13 OCTOBER, 1995

We extend an INVITATION TO YOU to attend

ORGANISING COMMITTEE

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Treasurer: Bob Dow
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SECRETARIAT

All correspondence should be directed to:

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Parrish Conference Organisers
AIMS 4th South Pacific Congress
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Potts Point NSW 2011
Australia

Tel: (+61) (02) 357 2600
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On behalf of the Organising Committee, I extend a warm invitation to all medical scientists and technical officers to attend the **4th South Pacific Congress** hosted by the **Australian Institute of Medical Scientists** and **New Zealand Institute of Medical Laboratory Scientists.**

The Congress will be held on Queensland's Gold Coast at the superbly appointed Conrad International Hotel and Convention Centre from 9 to 13 October, 1995.

The Congress will provide an outstanding scientific programme, a summary of which you will find in the following pages. Sessions covering "cutting edge" issues in various disciplines are designed to educate, challenge and stimulate. Additional pre–Congress workshops provide valuable "hands on" learning opportunities.

Some great events have been planned on the social side, giving plenty of opportunity to relax, enjoy the Gold Coast and get to know your fellow delegates.

Our sponsors are making an outstanding contribution to the staging of this Congress and we thank them for their generous support.

We extend a warm invitation to our colleagues throughout Australia, New Zealand and the South Pacific to come to the Gold Coast in October 1995.

Roy Wilkes
Chairman, Organising Committee

TRAVEL

DOMESTIC

Qantas has been appointed the official airline for the Congress.

Qantas has offered delegates a **45% discount** on normal economy class fares. American Express Conference Services can book these special fares – or other advertised discounted fares (which could be even less expensive).

To make your reservation phone 008–028–329.

Please ensure that you advise you are booking for the AIMS 4th South Pacific Congress. Ask for the special conference rate or the best fare of the day. Make your travel arrangements early to ensure the best available opportunities.

NEW ZEALAND

Special arrangements have been made with Qantas for delegates travelling from New Zealand.

Quote reference number JR3DP8 when phoning Qantas on 0800–808–767 for access to special Congress fares from Auckland, Wellington and Christchurch.

AUSTRALIAN INSTITUTE OF MEDICAL SCIENTISTS
NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENTISTS

4TH SOUTH PACIFIC CONGRESS
9–13 OCTOBER, 1995

PROVISIONAL PROGRAMME

WEDNESDAY 11th October 1995

8.00-9.00	**Registration**		
9.00-10.30	**OPENING SESSION** Opening & Welcome Fellowship Presentations & Awards Saal Foley Lecture *Assoc Prof D Ellis*		
11.00-12.30	**CLINICAL MANAGEMENT ISSUES** Medico Legal & Ethical, Near Patient Testing, Casemix Funding *Prof E McGoogan (UK), Assoc Prof A Nanji (USA), Mr E Wilson*		
13.30-15.00	**Medico Legal & Ethical**	**Near Patient Testing** *Dr D Hailey*	**Casemix, TQM / Best Practice** *Ms S Lloyd, Dr D Nicol*
15.30-16.30	**Accreditation MLS Courses Sth Pacific** *Prof A Webber Mr B Day*		
16.30-17.00	**AIMS Annual General Meeting**		

THURSDAY 12th October 1995

9.00-10.30	**IMMUNOLOGY - PLENARY** *Prof I Roitt (UK), Prof I Frazer*						
11.00-12.30	**New Technologies** *Industry presentations - o'seas speakers*		**Vaccines** *Prof D Moss, Prof K Ellem, Prof A Saul*			**Molecular Genetics** *Assoc Prof B Wainwright*	
13.30-15.00	**Concurrent sessions - Invited & Proffered Papers & Posters**						
	Immunohaematology *Mr T Forster* *& panel*	**Apoptosis** *Dr G Middleton* *Dr B Harmon* *Dr D Allen*	**Histopathology** *Dr A Tannenberg* *Dr S Weinstein*	**Toxic metals** *Dr D Kanowski* *Dr B Campbell*	**Microbiology** *Speakers* *to be advised*	**Haematology** *John Whiteley Address* *Dr H Smith* *Prof A Bunyaratvej* *(Thailand)*	**Cytogenetics** *Dr P Marlton*
15.30-17.00	**Haemolytic Disease Newborn** *Dr F Carmody*	**Autoimmune** *Dr R Thomas* *Mr R Wilson* *Dr A Klestov*	**Cytology** *Ms K Dowling*	**Hypertension** *Prof R Gordon* *Mr T Tunny*	**Microbiology** *Speakers* *to be advised*	**Haematology**	**Management**

FRIDAY 13th October 1995

9.00-10.30	**TROPICAL HEALTH - PLENARY** Tropical Tumours/ Parasitology/ Public Health *Prof R Cooke, Prof P Prociv, Mr A Kingsley*						
11.00-12..45	**Bone Marrow Transplantation & New Therapies** *Dr D Ma, Ms A Trickett, Dr C Starke (Germany)*			**Hepatitis** *Prof E Gowans, Prof G Cooksley, Dr M Harrison*			
13.30-15.00	**Concurrent sessions - Invited & Proffered Papers & Posters**						
	Information Technology	**Coagulation**	**Biochemistry**	**Haematology** *Dr B Bain (UK)* *Prof E Mammen (USA)*	**New Therapies**	**Other Proffered papers**	
15.30-16.30	**Closing Ceremony** *Mr Lawrie Lawrence - Olympic swimming coach & motivator*						

April 1995 - Preliminary Programme subject to change prior to Conference - Invited speakers are not finalized and the proffered paper sessions may change

AUSTRALIAN INSTITUTE OF MEDICAL SCIENTISTS
NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENTISTS

4TH SOUTH PACIFIC CONGRESS
9–13 OCTOBER, 1995

SCIENTIFIC PROGRAMME

All sessions will be held at the Conrad Convention Centre. We are delighted to announce that the following distinguished faculty will address the Congress on the leading-edge issues facing the laboratory scientist today.

INVITED SPEAKERS

Dr David Allen, School of Life Science, Queensland University of Technology	*Apoptosis in diabetes*
Dr Barbara Bain, Senior Lecturer, St Mary's Hospital Medical School, London	*Diagnosis & classification of leukaemias*
Prof Ahmond Bunyaratvej, Dept of Pathology & Research Centre, Medical School, Bangkok, Thailand	*Haematology – Automated reticulocyte*
Dr B Campbell, Drs Sullivan, Nicolaides & Partners, Brisbane	*Toxic metals*
Dr Frank Carmody, Wesley Medical Centre, Brisbane	*Haemolytic disease of the newborn*
Prof Robin Cooke, Clinical Professor, University of Queensland	*Tropical tumours*
Prof WGE Cooksley, Director Clinical Research Centre, Royal Brisbane Hospital Foundation	*Hepatitis – epidemiology, clinical*
Mr Bryan Day, Head of Department, Applied Biomedical Science, University of Tasmania	*Accreditation – MLS courses*
Ms Kay Dowling, Senior Scientist, Cytology Laboratory, Flinders Medical Centre	*Body fluid preparatory techniques*
Prof KAO Ellem, Deputy Director, Queensland Institute of Medical Research	*Melanoma vaccine*
Dr David Ellis, Mycology Unit, Adelaide Children's Hospital, North Adelaide	*Saal/Foley lecture*
Mr Trevor Forster, School of Life Science, Queensland University of Technology	*Education & training in transfusion serology*
Prof Ian Frazer, Director, Lions Human Immunology Laboratories, University of Queensland	*Therapeutic & prophylactic vaccines for cervical cancer*
Prof Dick Gordon, Dept of Medicine, University of Queensland	*Hypertension – clinical perspective*
Prof Eric Gowans, Sir Albert Sakzewski Virus Research Centre, Royal Children's Hospital Brisbane	*Hepatitis – developments in research*
Dr David Hailey, Head, Health Technology, Australian Institute of Health & Welfare, ACT	*Near patient testing*
Dr Brian Harmon, Lecturer, School of Life Sciences, Queensland University of Technology	*History of apoptosis*
Dr M Harrison, Drs Sullivan, Nicolaides & Partners, Brisbane	*Hepatitis – laboratory investigation*
Dr D Kanowski, Queensland Medical Laboratory, Brisbane	*Toxic metals*
Mr Allan Kingsley, Supervising Scientist, Pathology Department, Redcliffe Hospital, Queensland	*Tropical health*
Dr Alex Klestov, Director of Rheumatology, Royal Brisbane Hospital	*Autoimmune – clinical, laboratory diagnosis*
Ms Sheree Lloyd, Manager Clinical Costing Project, Princess Alexandra Hospital, Brisbane	*Casemix funding*
A/Prof David DF Ma, Director of Research, Dept of Haematology, Royal North Shore Hospital, Sydney	*Anti-sense therapy*
Prof Eberhard Mammen, Physiology, Pathology, Obstetrics and Gynaecology, Wayne State University, Detroit, USA	*Platelet function analysis*
Dr Paula Marlton, Assistant Director of Haematology, Princess Alexandra Hospital, Brisbane	*Cytogenetics – FISH*
Dr Euphemia McGoogan, Dept of Pathology, University of Edinburgh Medical School, UK	*Clinical management issues: Medical ethics*
Dr George Middleton, Dept of Pathology, Medical School, The University of Queensland	*Apoptosis in the thymus*

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4TH SOUTH PACIFIC CONGRESS
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Prof Denis Moss, Head, Epstein–Barr Virus Laboratory, Queensland Institute of Medical Research	*EBV vaccines*
A/Prof Amin Nanji, Director Clinical Biochemistry, Harvard Medical School, Boston	*Near patient testing*
Dr Paul Prociv, Director of Parasitology, University of Queensland	*Tropical health: Parasitology*
Prof Ivan Roitt, Department of Immunology, University College London Medical School, UK	*Autoimmunity – current scene*
Prof Alan Saul, Queensland Institute of Medical Research	*Malaria vaccines*
Dr Harry Smith, Paediatric Haematologist, Royal Brisbane Hospital	*Childhood leukaemia mimics*
Dr Christian Starke, Product Manager, Miltenyi Biotec GmbH, Germany	*Bone marrow transplantation MACS system*
Dr Tony Tannenberg, Director of Neuropathology, Mater Hospital, Brisbane	*Neurological disorders*
Dr Ranjeny Thomas, Dept of Medicine, University of Queensland	*Autoimmune – rheumatoid arthritis*
Ms Annette Trickett, Southpath, St George Hospital, Sydney	*Bone marrow transplantation research*
Mr Terry Tunny, Senior Scientist, Dept of Medicine, University of Queensland	*Hypertension – laboratory diagnosis*
A/Prof Branden Wainwright, Centre for Molecular and Cellular Biology, University of Queensland	*Clinical applications of human genome*
Prof Anthony Webber, Dean, Faculty of Life Science, Queensland University of Technology	*Accreditation – MLS courses*
Dr S Weinstein, Director of Pathology, Gold Coast Hospital	*Histopathology in Kenya*
Mr Ed Wilson, Victoria	*Casemix funding pathology*
Mr Robert Wilson, Dept of Pathology, Royal Brisbane Hospital	*Autoimmune*

THANKS TO OUR SPONSORS

The Organising Committee gratefully acknowledges the support of our sponsors.

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WS6: EXTENDED SPECTRUM BETA-LACTAMASE (ESBL) ($45)

Wayne Monaghan, Division of Microbiology, Princess Alexandra Hospital, Brisbane
Narelle George, Division of Microbiology, Royal Brisbane Hospital

Beta-lactamases are enzymes which destroy beta-lactam antibiotics including penicillins and cephalosporins. They may be encoded either by genes on the bacterial chromosome or by plasmids (ESBL), which can transfer easily between bacteria, spreading antibiotic resistance to previously susceptible strains. The evolution of beta-lactamases by these organisms has occurred since the introduction of penicillins and cephalosporins into clincial use.

This workshop will emphasize the importance of detecting ESBL producing strains in the clinical setting, the organisms involved, the conditions required for emergence of these plasmids and the consequences of their selection.

The workshop will cover methods, limitations and problems associated with the laboratory detection and susceptibility testing of these plasmids. The value of enzyme characterization and PCR techniques will also be presented in terms of epidemiology and nosocomial control. The issue of reporting policies and options will be discussed.

WS7: HOW TO GET THE BEST OUT OF DENSITOMETRY ($45)

F. Cornell, Iso Laboratories, Melbourne

The workshop will cover basic aspects of spectrophotometry and densitometry including stray light, light scatter, the chemistry of staining, wavelength selection, sensitivity and linearity.

The interaction of sample load, band concentration, protein composition, stain used and wavelength selection will be explored in detail with a view to obtaining accurate (and precise) quantitation. Selection of slit length and width will be covered.

The discussion will be complemented by "hands on" densitometry of plates prepared by the author to illustrate the various points. Conventional densitometry and third generation (image analysis) apparatus will be used and compared with emerging techniques such as capillary electrophoresis.

Participants are encouraged to bring their own gels and gain "hands on" experience.

WS8: PATHOLOGY SPECIMENS BY AIR ($45)

Sandra Rajan, Training Consultant

Strict regulations are in place for sending infectious substances and diagnostic specimens by air. All airfreight must now conform to numerous and complex International Air Transport Association (IATA) regulations. Non compliance with these regulations will mean that your samples may be delayed or rejected from the flight and you may be prosecuted.

The course covers the latest IATA requirements and a CAA approved certificate will be issued. The course is recommended for any pathology laboratory or health services staff who are responsible for the consignment of pathology specimens by air.

WS9: USE OF TRANSITION II IN THE MANAGEMENT OF PATHOLOGY SERVICES ($45)

Paul Bailey and Anne Pink, Brisbane South Regional Pathology Services
Bronwyn Scott, Princess Alexandra Hospital, Brisbane

TRANSITION II is a fully integrated financial and clinical decision support software system that gives hospital managers the tools to control costs, improve productivity, manage change and plan strategically. Data from the general ledger, payroll, medical records, pathology information systems and other departmental systems are fed into the TRANSITION II system and can be combined to generate reports which enable a detailed understanding of pathology costs at the level of a department, a clinical unit, an individual or group of patients.

This workshop will comprise three sections: a description of a relatively simple technique for costing pathology services; an outline of the process of transferring the information into the TRANSITION II software and an overview of the other feeder systems; an on-line demonstration of the use of the TRANSITION II software to answer specific questions related to the management of pathology services.

Parts two and three of this workshop will use the live Princess Alexandra Hospital database.

TUESDAY MORNING, 10 OCTOBER

WS10: ADVANCES IN COAGULATION ($90)

This workshop will provide state of the art information on a range of topical issues in coagulation. It will also provide the opportunity for information exchange.

It will cover:

- Instrumentation
- Selection of thromboplastins
- Lupus anticoagulants
- New diagnostic techniques in coagulation
- Genetics of Haemophilia
- Developments in coagulation therapeutics
- Mechanism of Aprotonin reduced blood loss after cardiopulmonary bypass
- Snake venoms in coagulation
- Testing for thrombophilia
- Proffered papers.

WS11: PATHOLOGY SPECIMENS BY AIR ($45)
Sandra Rajan, Training Consultant

This workshop is a repeat from Monday afternoon. Please refer to WS8 for details.

WS12: TOTAL QUALITY MANAGEMENT ($45)
Wendy Turner, Australian Quality Council

There is a growing world-wide recognition of the critical relationship between quality, productivity and international competitiveness in all types of organisations. Quality is not just a feature of a finished product or service but involves all internal processes and outputs. It requires the organisation to look beyond the present and focus on the things which will generate future competitiveness and more effective use of resources.

In the model of the Australian Quality Awards criteria leadership and customer focus are considered to be drivers of the management system. Together with planning, information and analysis, people and quality of process, product and service, they describe what needs to be done to achieve the necessary results, summarised in organisational performance.

WS13: SOLID PHASE ($45)
Peter Russell, Chief Scientist, Blood Bank, Royal Brisbane Hospital
David Cotterill, Immucor Diagnostics

The workshop will explore the applications of solid-phase antibody screening procedures. The history and developments of this technology will be discussed along with experience at a large public hospital Blood Bank. It is expected that instrumentation such as the Immucor ABS 2000 Automated Blood Group System will be demonstrated at this workshop. The workshop would be beneficial to scientists and technical officers who have or are investigating the implementation of automated blood bank systems.

WS14: BASIC BIOCHEMISTRY ($45)
Tony Badrick, Dept Head Biochemistry, S&N Brisbane
Greg Ward, Supervising Scientist, Chemical Pathology Dept, PAH Brisbane

The aim of this workshop is to review the biochemical results found in some common disease states. The target audience would be non-biochemists, scientists who work in multi-disciplinary laboratories (regional laboratories), and any other scientists who may appreciate a refresher course in the interpretation of common biochemical tests. The specific areas covered will include liver function tests, iron studies, renal function tests, electrolytes, thyroid function tests and adrenal function tests. Some of the more common artefacts will also be presented.

TUESDAY AFTERNOON, 10 OCTOBER

WS15: EXCELLENCE IN CUSTOMER SATISFACTION: HOW TO ACHIEVE IT IN A MEDICAL LABORATORY ($45)
John Knight, Entrepreneurial Business Promotions

It isn't enough to simply perform the duties of a laboratory scientist, on the job. You must also have the "right approach". Think about it; what a fantastic profession. Customers want more than a treatment from their doctor. Airline passengers want more than a safe flight. Guests in a motel want more than a room. "Customers" of a medical laboratory want more than a "cool," scientific approach, they also want to be treated well, and as an "individual." If it were you, would it be just another test, with another result?

Satisfied customers are the "key" to a medical laboratory's success and survival. It means going the "extra" distance to ensure that all aspects of the service are truly a standard of excellence. Customer service is an "ongoing" commitment. A marathon not a sprint. The workshop will discuss – "Not what's new, but common sense in customer service."

WS16: LABORATORY AUTOMATION ($45)
Dr Ross Vining, Westmead Hospital, NSW
(additional speakers to be advised)

The workshop will examine laboratory automation in particular "front end" or sample processing. The problems of integration and automation in laboratories will be presented. Coulter Electronics will present the new Coulter system to be followed by the experiences of a user of the system.

WS17: CYTOLOGY OF EFFUSIONS ($45)
Kaylene D. Dowling, Senior Scientist, Cytology Dept, Flinders Medical Centre, SA

The cytopathology of effusions presents a diversity of diagnostic problems because of the wide range of proliferative and neoplastic changes which may involve the pleura, peritoneum and pericardium. The final cytological diagnosis depends upon the recognition of cell patterns, as well as the nuclear and cytoplasmic characteristics of individual cells. A brief description of the collection and preparation of effusions for examination by light microscopy will be followed by a description of the cytology of normal, reactive and neoplastic cells most commonly found in transudates and exudates. Abnormalities will be presented in case studies illustrated by using the Papanicolaou stain on alcohol fixed smears and Romanowsky type stains on air dried smears. Immunochemistry stains will be demonstrated on the cell block preparations. The original haemotoxylin and eosin section will be used to show the definitive diagnosis when possible. Problem cases highlighting difficulties in diagnosis will be discussed.

A Profile of Productivity.

"Pathology departments are going to have to answer more diagnostic questions with less dollars. Those that cannot will be swept aside by those that can."

Ross F Vining, Today's Life Science Magazine.

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AUSTRALIAN INSTITUTE OF MEDICAL SCIENTISTS
NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENTISTS

4TH SOUTH PACIFIC CONGRESS
9–13 OCTOBER, 1995

GENERAL INFORMATION AND REGISTRATION

DATES

Workshops: 9–10 October, 1995
Conference: 11–13 October, 1995

VENUE

The Conrad International Hotel is the venue for the 4th South Pacific Congress. The Conrad combines outstanding meeting facilities with excellent accommodation and provides a combination of service and amenities which meet all Congress requirements.

DEADLINES

Receipt of Abstracts: 31 July
Early Bird Registration: 31 July
Cancellations: 31 August
Accommodation reservations: 6 October

REGISTRATION FEES

	Before 31 July	After 31 July
AIMS/NZIMLS Member	A$350	A$400
Non-member	A$400	A$450
Student*	A$175	A$225
Day - Member	A$130	A$150
Day - Non-member	A$150	A$175
Day - Student	A$ 65	A$ 80
Accompanying persons	A$ 65	A$ 65

* **"Student"** at all times refers only to full time students. Verification from your Course Co-ordinator must be enclosed with ycur registration form in order to be accepted.

PAYMENT OF FEES

Fees must be paid in Australian Dollars either by cheque or bank draft drawn on an Australian bank. Payment must accompany the registration form. Cheques and bank drafts should be payable to 1995 South Pacific Congress.

ENTITLEMENTS

DELEGATES

Payment of the full or student registration fee entitles:

- Attendance at all sessions on Wednesday, Thursday, Friday
- All documentation including programme and abstract book
- Conference satchel
- Welcome reception
- Morning and afternoon teas
- Lunch on Wednesday, Thursday and Friday.

DAY DELEGATES

Payment of day registration fee includes:

- Attendance at all sessions on nominated day/s
- All documentation including programme and abstract book
- Conference satchel
- Morning and afternoon teas
- Lunch on day of attendance

NOTE

Additional fees apply for attendance at workshops.

Workshops include morning tea. The full day workshop on Coagulation (WS10) includes a light lunch.

ACCOMPANYING PERSONS

Registration includes:

- Welcome Reception
- Introductory morning coffee
- Complimentary sightseeing tour of the Gold Coast.

PARTICIPATION

Participation is open to all persons interested in the medical sciences.

Those who wish to attend should complete the registration form and return it with payment to the congress secretariat.

Each registrant must fill in a separate form (photocopies of an original are acceptable).

ACKNOWLEDGEMENTS

Your registration will be acknowledged in writing, once payment is received with confirmation of your requirements as indicated on your registration form.

CANCELLATIONS AND REFUNDS

Cancellations must be notified in writing to the secretariat.

- Cancellations received before 31 August 1995 will incur a $75 cancellation fee.
- No refunds will be issued after 31 August 1995.

ENTRANCE TO THE CONGRESS

Each attendee of the congress will receive a name badge at registration. This badge will be your official pass and must be worn at all times to obtain entry to conference sessions, social functions, morning and afternoon teas and lunches.

EXHIBITION

A comprehensive industry display will be held in conjunction with the Congress.

Exhibits will cover the latest technological advances, instruments and materials available in the medical sciences.

If you are interested in exhibiting, a prospectus can be obtained from the Congress Secretariat.

AUSTRALIAN INSTITUTE OF MEDICAL SCIENTISTS
NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENTISTS

4TH SOUTH PACIFIC CONGRESS
9–13 OCTOBER, 1995

SOCIAL PROGRAMME

TUESDAY 10 OCTOBER 1995

WELCOME RECEPTION
Sponsored by
JOHNSON & JOHNSON CLINICAL DIAGNOSTICS
6.00 pm – 9.00 pm
Conrad International Hotel included for registered delegates
(additional tickets $40 each)

Join us for drinks and savouries in a relaxing atmosphere created by the soft tones of flute and piano. Take the opportunity to make new contacts, catch up with old friends and set the scene for the following days. The Reception will be held in the exhibition area.

WEDNESDAY 11 OCTOBER 1995

LET YOUR HAIR DOWN AT SEAWORLD
Sponsored by
CSL BIOSCIENCES
7.00 pm – 11.00 pm
$65 per ticket

Seaworld will be open exclusively for Congress delegates. Enjoy a casual night of great food and entertainment in this world famous marine park. Everything, including drinks and return coach transport is included in the price: good value as well as an unforgettable night! (Usual entry price for entertainment only is $34.)

THURSDAY 12 OCTOBER 1995

CONFERENCE DINNER
Sponsored by
BAYER DIAGNOSTICS
7.30 pm for 8.00 pm
Surfers Paradise Rooms
$75 per ticket

Quick as a flash, the plenary meeting room will be transformed into an elegant dining room. After dinner, enjoy the big band sound of the Cloudland Dance Band providing dance music for all tastes. Pre-dinner drinks, a three course meal with wines and entertainment are all included. Seating will be limited so book EARLY.

ACCOMPANYING PERSONS PROGRAMME

Registered accompanying persons will receive an official Congress name badge.

The tour desk at Conrad, conveniently located in the foyer, will provide a full service of optional tours which can be booked on the spot. Popular local attractions include:

- Subsidised shopping at Pacific Fair Shopping Centre – Australia's most spectacular shopping
- 4 Wheel Drive Tours of the Hinterland
- Movie World
- Currumbin Bird Sanctuary
- and many more.

TUESDAY 10 OCTOBER 1995

WELCOME RECEPTION

Please refer to the Social Programme for details.

WEDNESDAY 11 OCTOBER 1995

INTRODUCTORY MORNING COFFEE
9.00 am

We are delighted to invite you to morning coffee on Wednesday. A representative from the Tour Desk will introduce you to the range of attractions and tours available. This is an ideal opportunity to meet other "accompanying persons".

TOUR OF THE GOLD COAST

A complimentary tour introducing the Gold Coast is available this morning. Please make your reservation on the registration form.

ACCOMMODATION

SPECIAL RATES AT THE CONGRESS HOTEL

The Conrad International Hotel, the exciting venue for the 4th South Pacific Congress has offered very advantageous rates for AIMS delegates. A single, double or twin room will cost $150 per night (the regular rate is $210!).

OPTIONAL WEEKEND EXTENSION

The Conrad is extending the special Congress rate so you can enjoy the luxurious facilities of the hotel over the weekend (this offer applies to Saturday and Sunday nights).

STAY AT THE CONGRESS HOTEL
and be in the midst of things!

DEPOSIT

A deposit of one night's tariff must be paid to secure your reservation. Please include this payment with your registration fees. Reservations will be confirmed in order of receipt.

DEADLINES

The Secretariat will accept accommodation bookings (depending upon availability) until Friday 6 October 1995.

REFUNDS

The room deposit is non-refundable after 1 September 1995. Please note that your deposit will be forfeited if you do not arrive on the date booked.

CHANGES

Please notify any changes to your booking to the Secretariat, not to the hotel.

SHARING

Delegates must make their own arrangements to share accommodation. Only one deposit is required.

LATE ARRIVAL

Please indicate on your registration form or notify the Secretariat if you will arrive at your hotel after 6pm. Failure to do so might result in cancellation of your reservation.

PRE REGISTRATION

The hotel cannot guarantee occupancy before 2pm on the day of arrival. If you wish to ensure your room is available earlier, you must reserve the room for the night before. If you take this precaution, please advise the Secretariat so that the hotel knows that the room is pre-registered and won't release the room when you do not arrive on the reserved date. This will incur the cost of the night's tariff.

AUSTRALIAN INSTITUTE OF MEDICAL SCIENTISTS
NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENTISTS

4TH SOUTH PACIFIC CONGRESS
9–13 OCTOBER, 1995

REGISTRATION FORM

Please retain a photocopy for your records. Return the original form to:
1995 South Pacific Congress, P.O. Box 787, Potts Point NSW 2011. Tel: (02) 357 2600, Fax: (02) 357 2950.

Office Use Only
Reg. Number:

SECTION A: PERSONAL DETAILS

DELEGATE

Title (Prof/Dr/Mr/Ms) | Surname | Given Names | Sex M/F

Institution/Organisation | Position Held

Address for correspondence: Home ☐ Professional ☐

Country | Postcode

Telephone | Facsimile | Name to appear on name badge

ACCOMPANYING PERSON(S)

Title | Family Name | Given Names

Title | Family Name | Given Names

SPECIAL DIETARY REQUEST

Diabetic ☐ Vegetarian ☐ Other (specify) _____

This request covers the following persons: _____

SECTION B: ACCOMMODATION

Please complete this section only if you wish the Secretariat to book your accommodation. **A DEPOSIT OF ONE NIGHTS TARIFF IS REQUIRED** to secure your reservation. Tariffs are per room per night regardless of the number of occupants.

HOTEL	**SINGLE**	**DOUBLE (1 bed)**	**TWIN (2 beds)**
CONRAD INTERNATIONAL	☐ $ 150	☐ $ 150	☐ $ 150

Arrival date _____ After 6 pm? _____ Departure date _____

I have arranged to share with _____

(If two people share a room it is important for one person to make the reservation on their registration form and send only **ONE** deposit).

TOTAL SECTION B: _____

SECTION C: WORKSHOPS

DATE	TITLE	CODE	COST	TOTAL
9 Oct	Effective Paper Presentation	WS 1	$ 45	
9 Oct	How to Het the Best out of Electrophoresis	WS 2	$ 45	
9 Oct	ID of Clinically Significant Negative Staphylococci	WS 3	$ 45	
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SAMPLE ABSTRACT FORM

Vitamin B–12 deficiency in rats

White JB, Black SI, Grey PH.
Department of Nutrition, Melbourne School of Medicine, Parkville, Vic.

It is well known that vitamin B–12 deficiency can cause haematological and neurological abnormalities in humans, but there is little comparable data for laboratory rats (1). This long term (40 wk) study quantitated the relationship between vitamin B–12 status, methylmalonic acid (MMA) excretion and basic haematological parameters. Weanling Wistar rats (21d) weighing about 50 g were divided into two groups: (a) fed a control diet (b) control diet without added vitamin B–12. Fortnightly body weights and urinary MMA levels were obtained from one set of animals, from the other set rats were killed at 4 wk intervals for blood, brain and liver vitamin B–12 assays using the radioisotope dilution assay (2), Hb, haematocrit (Ht), BM and PB smears. All statistical comparisons were calculated from Students t–test.

After 6 wks on the deficient diet rats began to excrete greater amounts of MMA than the controls (1.11 ± 0.07 mg/day), this corresponded to liver vitamin B–12 levels of 85% of the initial value. Both the liver and plasma vitamin B–12 levels decreased exponentially with a calculated half–life of 14 wks, plasma levels were undetectable (<50 ng/L) after 26 wks. Brain vitamin B–12 levels increased three fold above weanling level in initial 10 wk, before falling exponentially with half–life of 10.1 wk. Detectable growth retardation occurred at 3 wks and continued for the duration being 30% less than controls at 40 wks, but no liver or brain wt changes were noted. No significant differences were noted for pooled Hb or Ht. Hyper–segmentation of neutrophil nuclei, characteristic of megaloblastic granulopoiesis (3) was observed in BM and PB from individually deficient rats with Ht less than 0.40 after 34 wk treatment. These results show that rats can serve as models for the human disease provided sufficient chronicity is observed.

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New Zealand Journal of
Medical Laboratory Science
Volume 49 Number 2
May 1995
ISSN 1171-0195

NEW ZEALAND JOURNAL OF MEDICAL LABORATORY SCIENCE

The New Zealand Journal of Medical Laboratory Science is published quarterly (March, May, August & November) on behalf of the New Zealand Institute of Medical Laboratory Science (Inc) by Institute Press Ltd, Auckland.

The Journal is indexed in the Cumulative Index to Nursing and Allied Health Literature (CINAHL).

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Editorial

Tuberculosis: An Ancient Disease – A Contemporary Problem

Mary Carr,
Microbiology Laboratory,
Department of Laboratory Services,
Wellington Hospital.

Tuberculosis has come out of the closet in a way that was unforseeable twenty years ago. Until the late 1970s mycobacteriology was a quiet backwater of clinical bacteriology, save for the ripple of interest in so-called 'atypical' mycobacteria which developed in the 1950s in response to the work of Runyon[1].

Several factors have come together to bring tuberculosis into the spotlight. In urban areas of the U.S.A. complacency and the running down of public health programmes have led to an increased incidence of the disease amongst the poor and homeless. In several areas of the world inadequate or unsupervised treatment programmes have resulted in the development of strains of M.tuberculosis resistant to all recognised antituberculous drugs. The carryover of disease into HIV infections are both prevalent[2].

The urgent need to contain the spread of tuberculosis in both the developed and developing world has been a driving force behind the accelerating rate of technological development aimed at isolating and identifying the causative organism faster so that resistance to one or more drugs can be detected earlier[3].

As medical laboratory scientists we have an ongoing responsibility to try to do things better – to assess new methods in terms of quality and cost-effectiveness, not just in the narrow 'user pays' sense but in the wider perspective of total patient and community care.

In this endeavour we need the support of all those involved in health care, both in clinical care and in public health. New Zealand is fortunate in lagging behind more urbanised countries in the incidence of multiresistant tuberculosis, but there is no room for complacency. Our incidence of resistance to isoniazid alone stands at around 8%[4]. This means that there is increased selective pressure on rifampicin. Cases of disease caused by strains resistant to both isoniazid and rifampicin do occur in New Zealand from time to time.

Tuberculosis is primarily a disease associated with lifestyle issues such as poverty and overcrowding, but medical laboratories whether community or hospital based are a vital part of any control programme.

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In This Issue

Haematological parameters and low ferritin levels
Brian Millar from Diagnostic Laboratory, Auckland, examined haematological parameters from pregnant and non-pregnant females who had low serum ferritin levels to determine if iron deficiency, as judged by a low ferritin level was accompanied by anaemia, hypochromia and microcytosis.

Normal full blood counts were obtained in 42.6% and 71.4% of non-pregnant and pregnant females who had low ferritin levels respectively. The author concludes that iron deficiency should not be excluded by a normal full blood count and suggests that serum ferritin should be included as a screening test for iron deficiency in pregnancy.

Carcinoma of the breast and tumour cell proliferation.
Ann Thornton and colleagues from the Wellington School of Medicine and Wellington medical Laboratory assessed tumour cell proliferation and Langerhans cell numbers as predictors of the presence of lymph node metastases for medullary carcinoma of the breast.

This retrospective study of archival paraffin embedded tumour block specimens failed to support the hypothesis implying that tumour proliferation and progression are two independently occurring processes.

Is there life after 40?
In this paper, Fran van Til, Executive Officer of our Institute takes a light hearted humorous look at what turning 40 years of age means to her and some of our well-known Institute members.

Haematological Parameters in Pregnant and Non-pregnant Auckland Females With Low Ferritin Levels

Brian Millar, MNZIMLS,
Haematology Department, Diagnostic Laboratory, Auckland.
Address for correspondence: B. Millar, Haematology Dept., Diagnostic Laboratory, P.O. Box 5728, Auckland.

NZ J Med Lab Science 1995, 49(2) 76-79

Abstract
Screening for iron deficiency usually includes a full blood count (FBC). A low haemoglobin level, hypochromia and microcytosis are the classic indicators for possible iron deficiency; but is the converse true? How often is iron deficiency, as shown by a low ferritin, accompanied by anaemia, hypochromia and microcytosis? Haematological parameters from 1173 women aged 15-50 years with low serum ferritins were examined, of whom 391 were pregnant. Normal FBC results were obtained in 42.6% of the non-pregnant females, and 71.4% of pregnant females. Iron deficiency, therefore, should not be excluded on the basis of a normal FBC; and serum ferritin levels should perhaps be included as a standard test in pregnancy.

Key words
iron deficiency, ferritin, pregnancy, haematology parameters.

Introduction
A full blood count (FBC) is often performed to check whether anaemia is present; and if normal, the patient may be assumed to have normal haematinic levels. This, however, may not be true for women of reproductive years.[1,2]

There is divided opinion as to whether patients with iron deficiency without anaemia exhibit impaired physiological function and the symptoms of anaemia such as lethargy and tiredness. Evidence has shown that iron deficiency without anaemia can lead to limitation in certain physical activity and work performance, as well as mental impairment particularly in children[3]. In this study, haemoglobin (Hb), mean cell volume (MCV), mean cell haemoglobin (MCH), and blood film and/or analyser histograms were compared in patients who were iron deficient with a serum ferritin (S. ferritin) level of 10 µg/L or less. Serum iron (S.Fe.) and total iron binding capacity (TIBC) were also performed on a significant number of these patients. Results were also compared with a recent Australian study[4].

Methods
A selective report programme on our laboratory computer, using DELPHIC software[5], gave a printout of all S. ferritin results of 10µg/L or less. FBC, S. Fe. and TIBC results were extracted if available, and results from all females aged 15-50 years were assessed. This process began in October 1992 and was stopped in February 1993, giving two groups of patients:

1. 782 non-pregnant females of which 633 (80.9%) had S. Fe. and TIBC performed;
2. 391 ante-natal (A/N) patients, of which 220 (56.3%) had S. Fe. and TIBC performed.

S. ferritin levels were determined using either a Baxter Diagnostics fluorometric enzyme immunoassay kit, or ETI-Ferrik, a kit from Sorin Biomedica. S. Fe. and TIBC were measured on a Technicon Chem 1 system using standard procedures. All haematology samples were processed through either a Technicon H*1 or one of two Technicon H6000 analyzers, calibrated and run using approved standards and controls. Biochemistry and haematology tests were mostly performed on the same samples, and results were included if the collection time difference was up to seven days. Multiple results were not excluded. It is possible that a few of the non-pregnant females were in fact A/N patients, as occasionally the requesting doctor asks for an FBC instead of an A/N blood screen and does not indicate gravida status on the form. This group also would have included a few patients where the haematology department arranged S. Fe. and ferritin levels due to haematological parameters and/or blood film suggesting possible iron deficiency, knowing that serum was available from other biochemistry tests. S. Fe and ferritin levels were only rarely arranged from the Haematology department on A/N patients. As cut-off points we used our normal ranges for both groups (see table 1).

Table 1
Normal ranges at Diagnostic Laboratory used in this survey

	Non-pregnant	Pregnant
Hb g/L	115-165	100-150
MCV fl	80-98	80-98
MCH ug/L	25-33	25-33
S.Fe ug/L	10-30	10-33
TIBC ug/L	45-72	45-72
Ferritin ug/L	25-250	25-250

Results
Table 2 shows the various haematology indices and the percentage of normals for each.

Table 2
Percentages of the two groups with normal results

	Non-pregnant	Pregnant
Hb	58.1	85.2
MCV*	57.2	80.3
MCH	63.8	86.4
Blood film	44.1	73.4
Hb, MCV, MCH, Film	42.6**	71.4
S.Fe	40	67.7
TIBC	32.2	5.9
Low Fe, high TIBC	61.2	71.4

* Two patients in each group had MCVs *above* the normal range.
** This compares with 43% normal reported in the Australian study[4]

Of the patients who had S. Fe. and TIBC performed as well as haematology, 15.6% of non-pregnant females were normal for all tests, and 3.2% of A/N patients were normal for all tests.

With the MCV perhaps most likely to indicate early haematological signs of iron deficiency, further comparisons between the groups, and comparing the Australian findings,[4] were carried out

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Figure 1 shows the range of MCV values, comparing the pregnant, non-pregnant, and Australian groups.

Discussion

It would appear that individual haematology parameters are insensitive indicators of iron deficiency.

Haemoglobin:

In iron deficiency, a reduction in Hb concentration is a relatively late development. This is preceded by a depletion of iron stores and a reduction in S. Fe. before there is any detectable change in Hb levels. Changes in blood volume and haemodilution also affect Hb levels and are quite variable in pregnancy. de Swiet[6] reports a normal Hb range of 100-145 g/L at 30 weeks gestation in healthy A/N patients who have received parenteral iron. He also suggests, in the same source, that Hb values of less than 105 g/L in the second and third trimesters are probably abnormal and require further investigation. The mean minimum Hb level acceptable to the World Health Organisation is 110g/l.[6] de Leeuw et al.[7] suggest a lower limit of 104 g/L, while Balloch and Cauchi[8], and Bluck et al.[9], give yet another set of values; so the question of defining "normality" of Hb is open.

No allowance has been made in our study for changing Hb levels during the trimesters of pregnancy, as we were not often given the number of weeks gestation when establishing our ranges. Using 105 and 110, instead of 100, as a lower limit of Hb concentration, gave normal haemoglobins in 73% and 57% respectively of the A/N group, the latter figure being close to the non A/N group. This variation in A/N Hb levels may be one reason for the percentage difference in Hb normals between the A/N and non-A/N groups; however, the difference in MCV between the groups is almost as wide, suggesting perhaps that there are different causes for iron deficiency in the two groups.

MCV

Ante natal MCV's showed a much higher percentage of normal results in our study compared with the non A/N group; possibly in keeping with supplementary iron being efficacious to the extent of maintaining a normal Hb and S. Fe. but not replenishing depleted stores. It has been found, however, that the MCV tends to rise during pregnancy, from an average of 86.2fl at 12 weeks to 90.2fl at 28 weeks, returning to 83.7fl six months post partum, in non-supplemented patients; and that patients on iron supplements showed a rise in MCV from 12 to 40 weeks, returning to early pregnancy values by six months post partum[10,11].

Conclusion

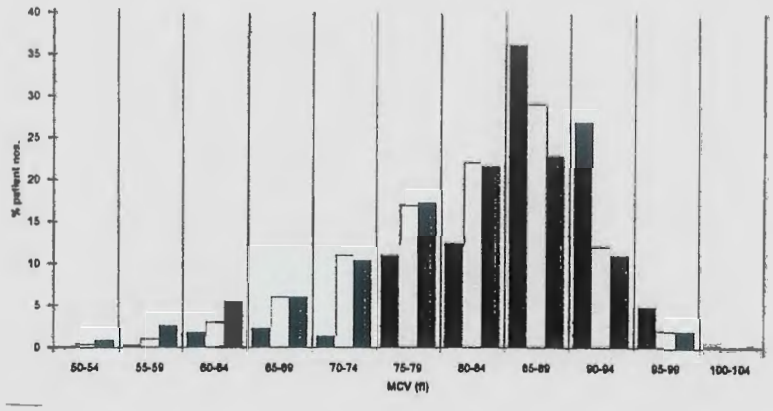
It has been shown that there is a considerable drop in ferritin levels between 12 and 15 weeks gestation, and rather constant values from 32 weeks on[12], although this is at variance with another finding that suggests that ferritin levels increase during pregnancy by as much at 50% in the first trimester, after which they decrease, reaching a low point in the third trimester[13]. yet another study showed that S. ferritin levels drop between 12-28 weeks gestation in both supplemented and non-supplemented patients, the former group showing a lesser decrease. Expansion of maternal red cell mass is at its greatest rate around weeks 20-25; and as foetal iron requirements increase markedly from week 30 onwards, it seems apparent that the drop in maternal iron stores is not related to the increased foetal demands, but rather reflects utilization in the expanding red cell mass.

S. Fe. levels decrease progressively during pregnancy due to haemodilution; although iron levels have been documented to be higher in the first trimester in pregnant women than in non-pregnant controls. Se. Fe. steadily decreases after the first trimester and reaches its lowest point in the third trimester[13]. Values of total circulating iron in pregnant and non-pregnant women have been, however, found to be identical[12], showing that haemodilution is the major cause of a low S. Fe. in pregnancy. S. Fe. concentration may vary considerably in non-pregnant, normal women (depending on time of day, menstrual cycle etc.) and in pregnancy transferrin production is increased because of oestrogen stimulation, leading to a decrease in precentage saturation independent of iron supplementation. The rise in transferrin levels is progressive, reaching the highest levels in the third trimester. In our non-A/N group, 60% had a low S. Fe compared with 32.3% in the A/N group. Yet 94.1% of the A/N group had a raised TIBC, confirming that TIBC cannot be used as a reliable indicator of iron status in pregnancy. The percentage saturation decrease, associated with lowered Hb and ferritin levels, perhaps erroneously suggests depleted iron stores in most pregnancies and hence the need for iron supplements. Thus the interpretation of iron levels in pregnancy is difficult[14].

The most likely cause for iron deficiency then, in pregnancy, is the increased demand for iron, which may also be exacerbated by inadequate diet, possible poor compliance with standard iron replacement supplements during pregnancy, or inadequate and/or insufficient iron supplementation; however, personal observation suggests that public awareness of dietary requirements and supplements in pregnancy has increased considerably in the last 25 years or so.

Although Hallberg et. al.[15] say that "the characteristic of iron deficiency is the absence of stainable reticular iron in technically satisfactory bone marrow smears containing sufficient amounts of stroma for adequate evaluation;" and "Absence of iron is then pathognomic for iron deficiency and the standard used to evaluate other laboratory measures," it is now generally accepted that S. ferritin levels are a reliable indicator of total body iron stores. In spite of divided opinion, it would appear that S. ferritin, S. Fe. and TIBC are necessary tests for possible iron deficiency in non-pregnant females, and testing for S. ferritin seems appropriate during pregnancy from about 20 weeks onwards, one source even going so far as to say that "the use of serum ferritin as a screening device may turn out to be more useful than haematology"[11]. Only the S. ferritin has been shown to correlate with

Figure 1 - MCV ranges, expressed as a percentage of total patient numbers.



iron stores in pregnancy[16]. Further studies are required to see if there exists evidence that iron deficiency in pregnancy can lead to premature labour, giving rise to premature infants with lowered iron stores, which could in turn lead to future problems including iron deficiency and impaired neurophysiological function.

In non A/N females, and more particularly in pregnancy, it is apparent that the routine FBC will not detect a considerable number of patients with latent iron deficiency.

Acknowledgements

My thanks to Drs. Michael Gill and Hilary Blacklock for their helpful comments and advice during the preparation of this paper.

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Winner of the Med Bio Journal Award for the March 1995 issue was Grant Goodman of the Taranaki Base Hospital Laboratory, New Plymouth, for his paper "Options for funding private laboratory services: An attempt to curb cost escalation in the provision of private laboratory services". *NZ J Med Lab Science* 1995; 49 (1):22-26.

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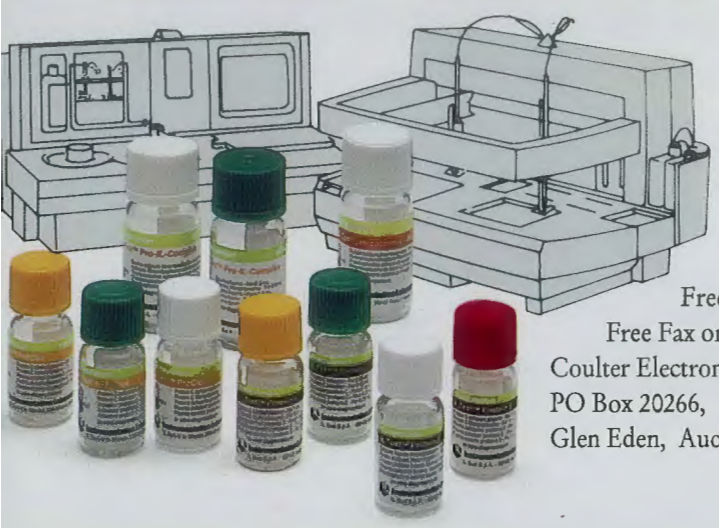

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Tumour Cell Proliferation and Antigen-Presenting (Langerhans) Cell Density Does Not Predict Node Status For Medullary Carcinoma Of The Breast

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NZ J Med Lab Science 1995, 49.2: 81-83

Abstract

Objectives. To assess the relationship between tumour proliferation and Langerhans cell numbers, and the presence of lymph node metastases in medullary carcinoma (MC) of the breast.

Method. Archival sections of MC were stained with anti-S-100 protein and polyclonal anti-Ki67 for visualization of Langerhans cells and cycling tumour cells respectively. T-lymphocytes were characterised by staining for CD-3 antigen. In all cases immunostaining was undertaken using the streptavidin-biotin method. Indices were derived for each parameter and the results were compared with tumours divided according to histological features (typical MC v. atypical MC) and lymph node status.

Results. Apart from a significant difference in T-lymphocyte population between both histological categories of MC, no signficant difference was noted between the parameters Ki-67, and Langerhans cell index, when tumours were divided according to histological type or lymph node status.

Conclusion. Neither Langerhans cell index nor tumour proliferation predicts the presence of lymph node metastases for MC.

Key words

Medullary carcinoma, breast, Ki-67, Langerhans cell, lymphocytes.

Introduction

Medullary carcinoma (MC) is a relatively uncommon subtype of breast malignancy comprising approximately 1% of tumours reported from various series[1]. It is well established that the tumour has a more favourable prognosis than infiltrating duct carcinoma (IDC), the most common malignant tumour of the breast[1-3].

MC is characterized by the presence of a prominent mononuclear inflammatory cell infiltrate and it has been postulated that these inflammatory cells act as mediators of tumour progression[2]. In other forms of breast carcinoma a prominent inflammatory cell infiltrate is associated with a poor prognosis[4] and to date the role of inflammatory cells as tumour growth modifiers for MC is uncertain.

The degree of mononuclear inflammatory cell infiltrate in benign tissues is largely determined by the activity of Langerhans cells which function as potent antigen-presenting cells[5]. In some tumours it is thought that Langerhans cells recognise tumour-specific antigens and this stimulates a mononuclear inflammatory response directly against the malignant cells. As such Langerhans cell density has been correlated with prognosis in several reported series from a variety of tumour types[6].

This study was undertaken to evaluate the role of Langerhans cells and T lymphocytes as mediators of tumour growth, as determined by Ki-67 antigen expression, for MC and to determine if there is any correlation between Langerhans cell index, tumour proliferation and spread of tumour to adjacent lymph nodes.

Materials and Methods

Approval for this study was obtained from the Central Regional Health Authority, Wellington Ethics Committee.

Cases originally diagnosed as MC of the breast were retrieved from the archives of the Pathology Departments of Wellington, Hutt and Palmerston North Hospitals, and from the archives of the private laboratory, Medlab – Wellington. The paraffin embedded blocks from each tumour were retrieved from the files and fresh sections were cut at 4μm thickness and stained with haematoxylin and eosin.

All sections from each case were reviewed and the tumours were divided into those showing features of typical medullary carcinoma (TMC) and atypical medullary carcinoma (AMC) using the criteria of Ridolfi et al[12]. Sections in which the tumour contained the greatest density of chronic inflammatory cells (lymphocytes and plasma cells) in the absence of tumour necrosis, were chosen for further study.

Further sections were cut at 4μm thickness from each of the selected blocks and were stained for immunohistochemical detection of Langerhans cells (S-100 protein)[6], and T lymphocytes, (CD3 antigen)[6] and, for Ki-67 antigen using the strept-avidin biotin method.

For S-100 protein and CD-3 antigen localization, sections were deparaffinised and endogenous peroxidase was blocked by immersion in 0.5% hydrogen peroxide for 10 minutes. The sections were washed in water and TRIS buffered saline (TBS) and then incubated for 10 minutes in 0.1% trypsin (Sigma T-8128) in 0.1% calcium chloride (pH 7.8) at 37°C. 0.5% casein was used to block non-specific binding and was followed by incubation in either anti-S-100 protein (DAKO Z311, diluted 1:300) or anti-CD-3 (DAKO A452, diluted 1:100) at ambient temperature for 1 hour and 12 hours respectively. Sections were rinsed in TBS and incubated in swine-anti-rabbit antibody (DAKO E353, diluted 1:300) for 30 minutes and 60 minutes respectively, followed by the application of strept-avidin biotin complex (DAKO K377). The reaction was visualised with 3,3' DAB (Sigma D-5637) and a haematoxylin counterstain.

For localization of Ki-67 antigen sections were deparaffinised and endogenous peroxidase activity was blocked by immersion in 0.5% hydrogen peroxide for 10 minutes. The sections were washed in water followed by incubation in 10mM citrate buffer in the microwave in HIGH for 25 minutes at 7 minute intervals. After cooling for at least 20 minutes, the sections were washed in water and rinsed in TBS followed by incubation in 0.5% casein for 20 minutes to block non-specific binding. The sections were incubated in rabbit anti-human Ki-

67 (DAKO A047, diluted 1:10) overnight at room temperature. After rinsing in TBS, strept-avidin biotin complex (DAKO K377) was applied. The reaction was visulaised with DAB (Sigma D-5637) and a haematoxylin counterstain.

Sections were evaluated by light microscopy at 400x magnification. CD-3 indices were determined by counting 1000 cells within each tumour and the proportion of positive staining T cells was expressed as a percentage. Ki-67 indices were obtained by counting the number of positive staining cells in a sample of 1000 tumour cells and again the index was expressed as a percentage. The Langerhans cell index was determined by counting the numbers of Langerhans cells within 50 consecutive high power fields (0.145 mm^2) of tumour. For each count areas of tumour necrosis were avoided and an eyepiece integration grid was employed to ensure that each cell was evaluated once only[17].

Results

A total of 28 cases of MC were confirmed after review of the histology of submitted cases. These comprised 19 cases of TMC and 9 cases of AMC.

Lymph node metastases were identified in 7 cases (3 TMC, 4 AMC) while the remaining cases were classified as node negative (16 TMC, 5 AMC).

Langerhans cell density ranged from 0 to 101/50 HPF with a mean index of 11.4 (SD 20.3)/50 HPF. CD-3 antigen positive cells ranged from 16.2 to 48.1% of intratumoural chronic inflammatory cell infiltrate with a mean index of 31.1% (SD 7.1%). Ki-67 indices were highly variable and ranged from 1 to 233 per 1000 cells with a mean index of 20.3/1000 cells (DS 42.9). The mean indices for S-100 protein positive cells and for CD-3 and Ki-67 antigen positive cells, with tumours divided according to histologic category, are compared in Table 1.

Table 1.
Comparison of S-100, CD-3 and Ki-67 indices according to tumour type.

		mean indices (standard deviation)		
	n	S-100	CD-3	Ki-67
TMC	19	13.2 (23.9)	34.5 (8.2)	23.8 (51.6)
AMC	9	7.6 (8.8)	29.5 (6.1)	12.9 (11.5)
comparison (p)		0.251	0.038	0.271

Cases were divided according to the presence or absence of lymph node metastases and mean S-100, CD-3 and Ki-67 indices for each category were compared using student's t test. There was no significant difference between each of the indices divided according to lymph node status (Table 2).

There was poor correlation between cell proliferation (Ki-67 indices) and Langerhans cell density (S-100 indices) (correlation coefficient r=0.23) which was not significant on regression analysis ($p > 0.05$).

Table 2.
Comparison of S-100, CD-3 and Ki-67 indices according to lymph node status.

		mean indices (standard deviation)		
	n	S-100	CD-3	Ki-67
node positive	7	6.9 (8.4)	28.6 (9.7)	14.2 (11.8)
node negative	21	12.9 (22.9)	31.9 (6.1)	22.3 (49.3)
comparison (p)		0.253	0.442	0.336

Discussion

Two histological variants have been described for MC with the typical form (TMC) having a pronounced inflammatory cell infiltrate associated with sheets of malignant epithelial cells[3]. The second subtype of MC, designated AMC, contains a minor ductal component but retains a predominantly medullary growth pattern. The inflammatory cell infiltrate in these tumours is variable and it has been noted to be less marked than that associated with TMC[2].

Pedersen et al[8] have proposed that the presence of a diffuse, moderate or marked mononuclear cell infiltrate is an important diagnostic criterion for TMC although in their series there was marked variation in interpretation by different observers. These criteria are in contradiction to the observations noted in the present series where the density of CD-3 positive lymphocytic infiltrate in AMC was significantly higher than that for TMC. This finding suggests that due to considerable intertumoural variation, the degree of T-cell lymphocytic infiltrate is an unsatisfactory feature with which to differentiate TMC from AMC.

Bone-marrow derived dendritic cells have a central role in the generation of immune responses[9] and several subtypes are recognised on the basis of morphology and immunophenotyping. Langerhans cells are type II dendritic cells characterised by S-100 protein positivity and in tissues act as outposts of the immune system by acquiring antigens and, in the primary immune response, carrying antigens to the lymph nodes where they initiate T-cell responses. In secondary immune reactivity, dendritic cells appear to have a role in activating memory T-cells in situ[10].

The degree of dendritic cell infiltration into tumours and adjacent tissues has been shown to be of prognostic significance. In several series of tumours, including lung[11], gastric[12], nasopharyngeal[13], laryngeal[14], papillary thyroid[15] and colorectal carcinoma[16], the presence of a dense infiltrate of Langerhans cells has been associated with increased survival.

Various studies have investigated the prognostic significance of Langerhans cell density in *in situ* and invasive carcinomas of the uterine cervix[7,8] and it has been shown that tumours showing fewer dendritic cells have a poorer prognosis.

Previous series have shown a favourable prognosis for MC when compared with that for IDC[3,8]. It has been speculated that this favourable prognosis is due to the presence of a mononuclear cell inflammatory cell infiltrate within the tumour which has been considered to represent an immunologic host defence mechanism[3,9]. In the present study Langerhans cells, which act as immunologic mediators in the development of a lymphocytic inflammatory cell infiltrate, were detected in varying proportions within all tumours in the series. The number of Langerhans cells present showed marked intertumoural variation with no correlation between Langerhans cell density and lymph node status being noted. This observation provides evidence that the development of metastases in MC is not altered by a host immune reaction to the tumour. These findings indicate that Langerhans cell density cannot be utilized as a prognostic parameter for MC.

Ki-67 antigen expression has been shown to be a consistent marker of cell cycle activity with the antigen being expressed in all phases of the cell cycle except G_0[20]. The recent development of a polyclonal antibody to Ki-67 has permitted evaluation of archival tissues and in several series tumour proliferation has been found to be of independent prognostic significance[21]. In series of breast carcinomas consisting predominantly of infiltrating duct carcinomas, Ki-67 positivity has been correlated with lymph node status[22] and disease free

survival[23].

MC is characterised by a higher grade of nuclear pleomorphism than that observed for IDC which suggests that MC has a more active proliferative compartment. Evidence in support of this may be derived from the comparison of Ki-67 indices from the present study with those previously reported for IDC[23]. Comparison of indices for tumours grouped according to lymph node status shows MC to have a consistently larger proliferative fraction for both node positive and node negative carcinomas.

Although MC shows greater proliferative activity than IDC, tumour cell proliferation for MC is not significantly associated with the presence of lymph node metastases. There is evidence to suggest that tumour spread is a multistep event and that metastatic progression is dependent on variation in oncogene expression[24]. The results from the present series show that, for MC, metastatic spread of tumour to lymph nodes does not correlate with cell cycle activity which implies that tumour proliferation and progression are two independently occurring processes.

Acknowledgements

The study was supported by funding from the Cancer Society of New Zealand and the Health Research Council of New Zealand whose assistance is gratefully acknowledged.

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SCIANZ Immunoassay Award

Recipient of this award in 1995 is Rob Siebers of the Wellington Asthma Research Group at the Wellington School of Medicine. Rob is involved in estimating house dust mite allergens (Der p 1) and other allergens by ELIZA to determine their role in the pathogenesis of asthma.

He will be using the award to attend the European Congress of Allergology and Clinical Immunology in Madrid, Spain in June 1995, and a satellite symposium on house dust mite allergens in asthma. A report on these meetings will appear in the next issue of the journal.

Is There Life After 40?

Fran van Til, Executive Officer NZIMLS, PO Box 78, Rangiora

NZ J Med Lab Science 1995; 49(2) 00-00

Reaching 40 was a time of discovery for me. A time when I realised that the grey hairs now out-number what was once the basic brown ones. The crows feet at the corners of my eyes, which were once a temporary apparition have now become an abundant feature. I discovered that the force of gravity had caught up with me and certain unmentionable parts of my anatomy are, by natural attrition, migrating south. My shoulders had slumped along with the 1987 share market crash finances and the battle of the bulge is in its finest hour. Is there life after 40 when what I used to do all night, now takes all night to do. Or when I kid myself that an hour in the garden is enough exercise for the whole week. At forty, I may not be over the hill, but I am certainly getting a good look at the other side.

This was how I perceived myself to be and I was even more horrified when my colleagues on Council were alerted to the fact that I had now adjourned to the other side of 30 (and I didn't get a pay rise). Life at 40 was the pits. How was I going to cope and what was to become of me. Is this familiar to any of you? However, the above scenario is now history. I read my microscope recently, it told me to update my appearance, adjust my sights and change my attitude and these are the three areas I am going to address.

Firstly appearance. As scientists you know the importance of appearance. Everyday you are looking at cells and tissues and other unmentionable excretions and secretions to ensure that they have a model-like appearance. So I have a few expression lines, a few applications of the reagent, Revlon Results will help me here, as it has obviously been successful for Lauren Hutton and I quote "This is your prime, make the most of it". And I have a few grey hairs. Wella provides me with a great range of hair colours. Gone are the greys and the basic browns. I can be mahogany one week, orange fire or a blonde bombshell. Rachael Jenkins could wear all three colours at the same time.

You may not be aware that Warren Dellow of Med Bio has expanded his business. He has come up with a unique package. "Change the colour of your hair and at the same time, do an API pregnancy test." And just look at all the colours Med Bio offers. Call Warren toll free on 0800 733 599 for a free analysis of your current hair colour.

Barrie Edwards is exceptional at keeping up appearances. He appears at NZIMLS conferences, SI Seminars and in the past all Council meetings. He appears at most social functions and never goes home. And yet Barrie has relatively few grey hairs. However, Barrie's winning philosophy is to give them to others. When young Barrie does start to go grey I think he will be very distinguished looking or should it be extinguished.

One must be happy and comfortable with one's appearance – if you don't like an aspect of your appearance, then visit Warren, avoid Barrie or just accept yourself as you are.

Point number 2 is adjustment. We all have to make adjustments throughout our lives, no matter what decade we are in – and the health industry is no exception. And okay, so I'll never be as adorable as this again, and I can abandon any hopes of being on the front cover of "Play Boy". So the adjustment I will make here is first to put on some clothes and secondly to set my sights to appearing in the Woman's Weekly.

Now, getting back to front covers, who subscribes to this little treasure, the New Zealand Journal of Medical Laboratory Science. This publication if full of fact, seminal fluid and who done it with who, commonly known as "Institute Affairs". On second thoughts, who doesn't subscribe to it. It appears everyone subscribes, Rob Siebers will be pleased.

Issue number 4. Now if you have read this mag from cover to cover you will be able to tell me the name of the Council member who features on this issue and it is not Paul McLeod with his arm around Debra. The front cover, is covered with none other than our Presidnt Dennis Reilly. Now I know this, not because I have been peeking, but because our dearly loved President told me so himself. Dennis telephoned me especially to let me know that this was him twenty years ago. Perhaps this is not the best example. However, it will give you some indication of how much Dennis has adjusted over the latter years.

Les Milligan is a prime example of self-adjustment. While Shirley Gainsford was out for a run this morning she ran into Les. He had just finished playing a game of tennis with his wife Sandie and Les decided to run back to the Village Inn. Now Sandie offered to carry his racquet back if he could take the tennis balls. Les being a sensitive new age guy put them down the front of his shorts, much easier than carrying them. That's when Shirley ran into Les and she couldn't help but notice. Les, by way of explanation said to her. Don't worry it's just tennis balls. Shirley gave Les a very sympathic look and said that must be very painful, my brother had tennis elbow once. After 40 it may become necessary to make the adjustments that both Dennis and Les have and may I say they have made the transition with dignity and dedication. Remember the key is in adjustment, not abandonment or abolishment.

The final point I would like to make is regarding attitude. If at 40 we think "oh horrors, I am reaching pensionable status, I'm flirting with Arthur Ritis, and Al Zhier has left his calling card, then we are admitting defeat and life after 40 will be a continuous round of specimen jars, test tubes and PSA treatments.

It has been said, in the past, that Council is made up of a lot of old funny duddys. I found the meaning of the term duddy under its botanical name, Furunculosis, in this book Dictionary of Medical Laboratory Sciences and I quote:

"Recurrent appearances of tense, acutely inflamed and painful abscesses in the butt, usually over areas of abrasion or excessive perspiration. The lesions are commonly referred to as Council Members. Sometimes they progress to become carbuncles".

Now, this is not true. The majority of them may be having a wee squizz at the other side of the hill and some are becoming folically stressed, but they are definitely not by any stretch of the imagination, carbuncles.

There is someone that does not need any introduction. This person is charming and has been an integral part of the NZIMLS and the old geezers club (Council). This geezer has a very positive attitude. He is into the next decade and still into barbered singing. I am not trying to transfuse you, he is affectionately known as Kevin McLoughlin. You may think that I have been a little disrespectful calling Kevin a grey haired old geezer, but I am using his words. At Kevin's acceptance speech of life membership at the AGM – Kevin said "that he thought Council was made up of grey haired old geezers who were well past their used by date".

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The point I am making here is there is life after 40, and after 50 and after 80. Kevin is the evidence.

The grey haired old geezers on Council have been replaced by Yuppies. Let me give you an example. At the Council meeting held recently in Akaroa, a cell phone starting ringing, Dennis thought "it must be for me" and dived into his brief case. However, Trevor put up his hand, pulled his two end fingers out, pushed a couple of buttons and spoke to Barrie about the eminent takeover of Canterbury Health Laboratories. Trevor then pushed some more buttons, closed his fingers and we carried on with the meeting. It wasn't long before a cell phone rang again. Dennis thought "it must be for me this time". Wrong again, Chris pulled out his bottom lip, pushed a couple of buttons and spoke to Mury Nulsen at Massey. After the conversation had finished, Chris pushed the buttons again and put his lip back. Then again the cell phone rang a third time. Dennis didn't bother this time. Leanne Mayhew stood up and bent over. Everyone around the meeting table looked horrified. Leanne calmly said "don't worry I'm just expecting a fax".

Those who have an assertive attitude will more than likely lead a very fulfilling existence and achieve whatever they put their minds to no matter what their age or what CHE they are under.

What have I accomplished in this motivational, dynamic, scientific presentation? A presentation that has been delivered with style, grace and eloquence. I hope I have embarrassed a few of you, I have promoted Med Bio, discovered that everyone is a member of the NZIMLS. Encouraged and revitalised the over 40s and eased the minds and bodies of the under 40s. So there is only one thing left to do and that is to raise the Treasurer's blood pressure dramatically, to watch his beaming smile fad, to see that great crop of hair turn white and the worry lines appear. I am going to present him with my exorbitant feell

The view that I am getting from the top of the hill is wonderful. There is definitely "life after 40".

Fourth Year BMLS Students and Their Clinical Training Year

Chris Kendrick,
Dr Mary Nulsen,
Department of Microbiology & Genetics,
Massey University.

The Massey University Bachelor of Medical Laboratory Science (BMLS) is a four year degree, with the first three years spent in full time study on campus at Palmerston North (sunshine city). During this time the students are given a good grounding in the biological sciences and an introduction to all of the disciplines of Medical Laboratory Science.

In the fourth year of the programme which is divided into two 15 week semesters, our students specialise in two MLS disciplines. In most cases to date, students have been able to take their selected options for the fourth year, such has been the response from the training laboratories. The only limitations are the numbers training at the same site or the programme's requirement for students to select a minimum of 1 core discipline (Haematology, Clinical Biochemistry, Microbiology or Transfusion Science). Their second option may be a core discipline or be selected from one of the remaining (Virology/Immunology, Histological Technique, Medical Cytology). We have adopted this latter requirement to optimise employment opportunities after the completion of their degree.

To gain practical experience in these disciplines, students are expected to work in laboratories 'at the bench' for approximately 30 hours per week. During this time the student is expected to reach an 'entry level' of competence in the techniques that make up the relevant logbooks. As well as the logbooks students are supplied with Study Guides relevant to the chosen disciplines. These provide a source of information that underpins the practical teaching. Our students are required to forward fortnightly reports of their progress through the logbooks, to each of the course controllers at Massey. As well they do several assignments and sit a written examination in each of the subjects at the completion of each semester (from 1995).

The year of clinical training is demanding of both the students and the Medical Laboratory staff involved in their teaching. There is only a limited amount of time [15 x 30 hrs] to introduce the students to a wide range of methods and/or instruments relevant to each discipline. Thanks largely to the advice given by the SIGs of the NZIMLS, and other interested parties, the logbooks appear manageable. The students are able to cover all the tests/techniques required of them, but there is no spare time. Because of the commitment requirement to train our students we are told that the students are a cost to the laboratories teaching them, causing staff 'slow down' and reduced laboratory output. This being the case, then it follows that the BMLS students do not make any significant contribution to the output of the laboratories in which they receive their clinical training. To offset these costs, Massey University reimburses the laboratories several thousands of dollars per student per semester for this training.

Ever since the early days of the BMLS programme there have been questions raised over the status of the students in the laboratory. Principally these centred around difficulties with ACC and the payment of the students. While the concerns over ACC have abated, the cries for student payment are still sometimes heard. While the students would welcome payment during their training, this appears unlikely, when students do not contribute significantly to laboratory output.

The feedback that we have had from our first fourth year class has been that overall they enjoyed the year. In fact the only significant discontent arose from those few students who were placed in laboratories where they were not allowed to perform any 'real' work. The result of this was that some of our students found themselves unable to get sufficiently high levels of 'hands on' training. For these students, sampling handling was limited to the testing of 'mock up' samples that frequently left students idle and isolated from the main activities of the medical laboratory. While we are keen to avoid the exploitation of the students by the employer we have difficulty understanding how students can be trained to any standard without handling and performing actual clinical sample testing. This after all is what Massey University pays the laboratories for.

To prevent exploitation of the student we have put in place mechanisms that allow us to monitor and prevent this from occurring. During each of the two semesters students provide us with reports of their progress. If problems are encountered then we can be alerted quickly. If the laboratory is unable to resolve the situation or prove unwilling to alter their treatment of the student then we would be unable to offer further student training opportunities to that laboratory, without a change in attitude.

In order that the BMLS students reach their full potential in this year it is our wish that they be given the opportunity of integrating fully into the environment of the clinical laboratory. In our experience (1.5 years worth) most laboratories have adopted a realistic approach that appears to be consistent with this aim. In hindsight then it can be said that overall the first fourth year of the degree progressed smoothly.

While we think that the programme produced by Massey University is of a high standard (not that we are biased) we are keen to make improvements to the programme as it develops over the next few years. It is our belief that the profession will be well served and represented by the Massey graduates and we extend our thanks for your support of the Massey University BMLS students and BMLS programme.

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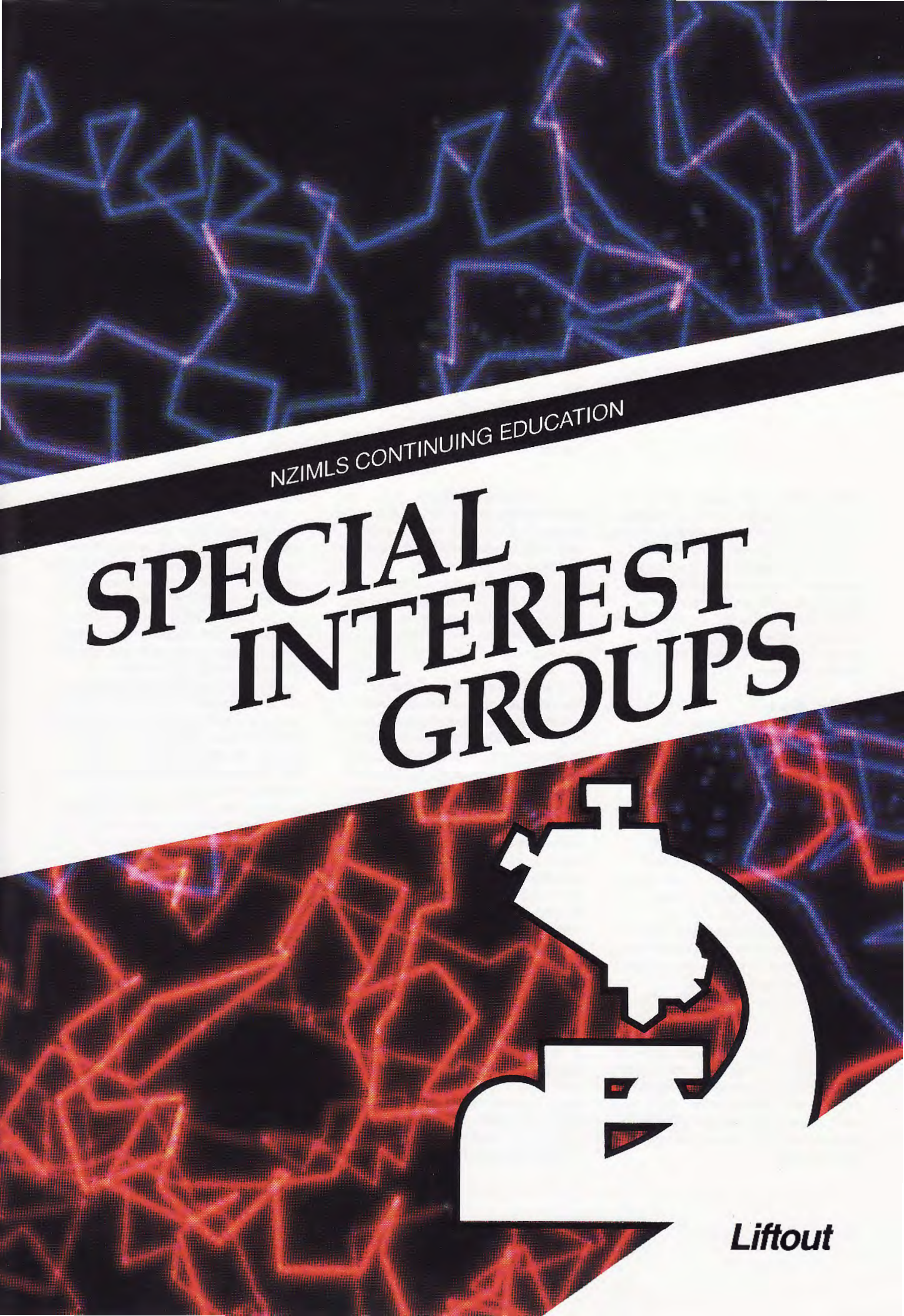
NZIMLS CONTINUING EDUCATION

SPECIAL INTEREST GROUPS



Liftout

Transfusion Science

Special Interest Group

Convenor: Sheryl Khull, Transfusion Medicine, Palmerston North Hospital
Members: Ray Scott, Auckland Regional Blood Centre; Roger Austin, Blood Bank, Taranaki Base Hospital, New Plymouth; Sue Barid, Blood Bank, Lakeland Hospital, Rotorua; Marie Wilson, Blood Bank, Gisborne Hospital; Zandra Mitchell, Blood Bank, Napier Hospital; Kevin McLoughlin, Transfusion Medicine, Christchurch Hospital; Diane Whitehead, Transfusion Medicine, Christchurch Hospital; Les Milligan, Blood Bank, Otago Hospital, Dunedin

Are you an Expert?

Our Journal editor, Rob Siebers, is compiling a list of experts in their respective fields who he can approach to referee submitted papers and possibly also write leading articles and comments. These experts can be medical laboratory scientists, pathologists or other health care professionals. If you think you can help out in this way, please contact any member of the Transfusion Science SIG or Rob Siebers directly.

NICE News

We had another very successful NICE Weekend at Wairakei at the beginning of April. It is certainly becoming a popular event, with this year's 54 participants being the highest number yet. We heard about an unusual blood warming technique used at National Women's Hospital, reminisced about the old days, and gained an idea from Sweden about how to spend our blood credits! There were a number of papers about Quality assurance this year – no doubt a sign of the times. The abstracts of all the presentations are published below. There is always some excellent presentations at this event on all kinds of topics – I'm sure there will be something for everyone.

Everyone who attends the NICE Weekend also has to participate and everyone learns and benefits in lots of different ways. Abbott Diagnostics kindly offer sponsorship to the national scientific meeting for the presenter of one selected paper, and this year's well-deserved winner was Sharon Kirk from Invercargill, who presented a case study of Haemolytic Uraemic Syndrome. Well done, everyone!

I'm sure everyone else will also have found it to be a fun-filled as well as fact-filled weekend, but why don't you ask someone who went? Maybe you'll catch the bug and we'll see you there next year.

As for next year, of course there will be another NICE Weekend, also at the very successful Wairakei venue on the weekend of 13-14 April. So put it in your diary now and plan to join us.

Literature Reviews

The Coagulopathy of Massive Blood Transfusion was reviewed in the September 1994 issue of the ASBT publication Topics in Transfusion Medicine by MP Harvey and Y Kwan. This article deals with hypothermia, thrombocytopenia, depletion of coagulation factors, and replacement therapy for patients with massive transfusion needs. The authors review several formulae which have been proposed as massive transfusion protocols including the age-old debate surrounding the use of fresh whole blood. They conclude with the following recommendations:

"Firstly, aggressive resuscitation with crystalloid or colloid plus the prevention of hypothermia make major contributions to the prevention of subsequent coagulopathy. Secondly, microvascular bleeding is likely to occur if platelets fall below 50 x 10^9/L, fibrinogen<0.5g/L and coagulation times >1.8 x normal. These thresholds are likely to be attained following infusion of between ten and twenty units of packed cells in under 24 hours. The platelet count, PT and APTT should be followed closely in massively transfused patients, and component therapy targeted on this basis. Because of the initial steep absolute drop in factors during the exponential decay of "exchange transfusion", attempts to maintain normal levels of platelets and clotting factors are likely to be costly in the use of blood components. Reasonable targets would appear to be the maintenance of a platelet count >75 x 10^9/L, fibrinogen >0.75g/L and PT and APTT <1.5 x prolonged compared to normal controls. There will be situations where rapid, catastrophic bleeding does not allow sufficient time for serial monitoring of coagulation and platelets (eg >10 units of blood per hour). In this situation a "best guess" replacement of up to five units of FFP and 10 units platelets per 10 units of packed cells, after the initial ten units have been transfused, may be justified to prevent microvascular bleeding from potentially dangerous sites, such as closed head injuries in multitrauma patients. Cryoprecipitate has a role in patients with measured plasma fibrinogen of <1.0g/L. The freshest blood available, which has been fully screened, should be used."

Oral Presentation Abstracts

Abstract NO.

1. **And Now We Are Seven**

Elizabeth Fisher,
Laboratory,
Masterton Hospital,
Masterton.

A case history of repeated successful pregnancies in the face of exceptionally high levels of anti-D; a tribute to the work of William Liley and Herbert Green, and some

reminiscences about the good old days.

2. **Who Dunnit?**
Judith Palea'ae,
Transfusion Medicine,
Good Health Wanganui,
Wanganui.

– A dead body
– Numerous people at the scene of death
– What happened?
– A mystery that is waiting for the coroner to bring all of the pieces together.

3. **Oh No! An Incompatible Cross-Match**
Donna Milner,
Blood Bank,
Taranaki Base Hospital,
New Plymouth.

A multiply-transfused patient has a subsequent incompatible cross-match and a positive DAT due to IgG. An investigation of this produces an interesting result.

4. **Afibrinogenaemia And Pregnancy**
Suzanne Williams,
Transfusion Medicine Department,
Dunedin Public Hospital,
Dunedin.

A 29-year-old woman who previously had three miscarriages presented during her fourth pregnancy for treatment to maintain her pregnancy to full term and to deliver a healthy baby.

The method chosen and its impact on the lab are discussed.

5. **Intrauterine Transfusions At National Womens' Hospital**
Janette O'Leary,
Blood Bank,
National Women's/Greenlane Hospitals,
Auckland.

A look at the criteria for acceptance onto the Foetal Assessment Monitoring Programme at National Women's Hospital, with regard to Foetal Haemolytic Disease and how an affected foetus will be assessed, monitored and transfused if required.

6. **The Source Of HUS**
Sharon Kirk,
Blood Bank,
Kew Hospital,
Invercargill.

This presentation will examine a rare, life threatening disease suddenly acquired by a patient.

The diagnosis and treatment for this condition and resulting impact on the Transfusion Medicine Departments of Southland and Otago will be reviewed.

7. **Autologous Blood Donation For Elective Surgery**
Simon Campbell,
Blood Bank,
Tauranga Hospital,
Tauranga.

The risk of HIV and Hepatitis C has popularised the practice of pre-donation of autologous blood prior to elective surgery. While popular in North America and Europe, the practice is not widely accepted in New Zealand for reasons of cost and logistics. While carefully screened blood significantly reduces the risks of transmittable diseases, unrecognisable viral species and strains are always possible.

A review of some elective orthopaedic surgery patients was undertaken to review the procedures used and assess patient satisfaction.

8. **Blood Banking in Sweden – Impressions Of An Antipodean Visitor**
Geoff Herd,
Blood Bank,
Whangarei Area Hospital,
Whangarei.

A brief discussion of the organisation of Swedish health services and the operational management of hospital laboratories with particular reference to routine blood banking is presented. In general hospital Pathology services are separated into three departments: medical microbiology, histopathology and a "klin khem" department which comprises transfusion science, haematology and chemical pathology disciplines. In klin khem 90% of staff are laboratory assistants with 2-3 years polytechnic or university who rotate through the three disciplines on a three weekly basis. The laboratories use state of the art equipment and are well staffed. PhD students and engineers are responsible for analyser evaluation, development of methods and computer services. The Swedish Blood Banking service has a centralised on line database for donor records based in Stockholm and can be accessed throughout the country. Hospital blood banks are responsible for donor collection and some accreditation. Plasma for fractionation by private companies is collected by extensive plasmapheresis programmes, however, self-sufficiency of supply has not yet been achieved. The incidence of infectious diseases among donors is very low and blood group gene frequencies differ significantly from those in New Zealand.

9. **A Brief Comparison Of Antibody Screening/Cross-Matching In Three Countries**
Simon Benson,
Blood Bank,
Middlemore Hospital,
Auckland.

I have been lucky enough to work in Blood Banking/Immunohaematology in three countries, namely the UK, Australia and New Zealand. During this brief presentation I aim to compare the techniques used for antibody screening and cross-matching in the various laboratories I have been employed in.

10. **CHE Orphans**
Beverley Montgomery,
Blood Bank,
North Shore Hospital,
Auckland.

An overview of a small Blood Bank caught up in changes bought about by the formation of CHE's – being transferred from a Regional Transfusion Centre, and integrated into a hospital laboratory service only to have the hospital laboratory service contracted to a private laboratory.

Where does that leave us??????
Who wants us??????

11. **The X-Files**
Tony Morgan,
Immunohaematology Department,
Napier Hospital,
Napier.

One Blood Banker investigates paranormal phenomena.

12. **In The Beginning**
Faye Martin,
Blood Bank,
Memorial Hospital,
Hastings.

Life as a trainee nearly 100 years ago.

13. **Rotorua's Experience With Donor Open Days For Donor Recruitment**
Sue Baird,
Blood Bank,
Rotorua Hospital,
Rotorua.

Common to most Transfusion Services, Rotorua is experiencing an increased demand for blood products and this requires more regular donors.

The drive to increase the donor roll has been complicated by a low community profile caused through a combination of the centre's location (within the hospital) and the fact that no mobile collections are performed except in the schools.

Two open days were organised with wide newspaper and radio coverage. The impact of the open days on the department routine and a breakdown of donors attending are discussed.

14. **Journal Club**
William Perry,
Biolab Scientific,
Auckland.

Why did they do the work? What were their findings? What is the significance of their findings? What should be done next?

15. **K Typing – Do We Or Don't We**
Christine Brenton-Rule,
Blood Bank,
Napier Hospital,
Napier.

The results of a survey on what different laboratories are doing are presented.

16. **Withdrawal – Who Does And Why**
Judy Woodard,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

The reasons for blood donation withdrawals and the trends seen in the last two years are presented.

17. **Separating Multiples**
Jane Ashby,
Blood Bank,
Thames Hospital,
Thames.

A short, non-technical, personal account of separating triplets between identical and fraternal, by blood grouping.

18. **Reminiscing Over CHIDO**
Tony Mace,
Waikato Pathology Laboratory,
Hamilton.

Who wants to give the game away? This is an excuse.

19. **A Statistical Overview Of Paternity Cases For 1994**
Mansukh Patel,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

A brief summary of all of the paternity cases analysed during 1994 in our laboratory using DNA technology is presented.

20. **MUD Update**
Sandy Beckman,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

An update on where we are with the MUD registry and matched unrelated bone marrow transplants is presented.

21. **Solid Organ Transplantation For 1994 – An Overview**
Kathy Figgins,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

Presentation of statistical data from national figures for Heart, Lung, Liver, Corneas and Renal transplants for 1994.

22. **PPP – Problem Platelet People**
Margaret Ushakoff,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

Two case histories of "problem platelet people" referred for investigative studies are presented.

23. **Appraisal Of The In-House Preparation Of Platelets**
Faine Parker,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

Platelet concentrates for therapeutic use are routinely prepared in the laboratory. The initial "light spin" centrifugation produces platelet rich plasma from the whole blood units. Platelets in the platelet rich plasma are concentrated using a "heavy spin" centrifugation. The focus of this project was to optimise platelet yield from whole blood, centring on the initial centrifuge time. Units were processed closely to routine standard operating procedures used in this laboratory. Results of this pilot study indicate that the five minute centrifugation yield of 79±7.1% is significantly higher than the six minute yield of 66±11.2% currently in use. Future direction would be to confirm these findings by processing more units under routine laboratory conditions enabling a new protocol to be established.

24. **What Group Is My Platelet?**
Sheryl Khull,
Dept of Transfusion Medicine,
Palmerston North Hospital,
Palmerston North.

Blood Bankers are familiar with the principles involved with the selection of red cell components that will be compatible with the recipient's blood group.

But what about platelets? Do platelet preparations contain ABO antigens? ABO antibodies? Rh antigens? What rules, if any, should we apply when selecting platelet preparations for transfusion?

There is a wide variation in practice throughout the country, but some guidelines are available.

25. **Lowering The Threshold**
Bart Barker,
Department of Transfusion Medicine,
Palmerston North Hospital,
Palmerston North.

Prophylactic platelet transfusions are widely used in patients receiving intensive chemotherapy to reduce or prevent bleeding complications due to thrombocytopenia.

A threshold platelet count of 20 x 10^9/L has been generally accepted for many years but the scientific rationale for this is not clear. Careful review of the available data suggests that a significantly lower threshold platelet count may be adopted and the recently modified Guidelines for Platelet Transfusion in Palmerston North Hospital will be discussed together with a justification for lowering the threshold for prophylactic platelet transfusion.

26. **A Matter Of Degrees**
Ray Scott,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

While by no means new, the requirement to maintain blood and blood products within tightly controlled temperature ranges has been emphasised during GMP licensing audits since 1993. The requirement for validated storage and transportation procedures is now under much greater scrutiny than in the past and this, together with conditions specified within contracts for supply of blood and blood products, provides compelling reasons for ensuring specified temperature conditions are maintained. The ability to provide evidence of transportation temperature control is becoming easier with the availability of temperature logging devices. This paper reviews the options available in this regard.

27. **Centralised Temperature Monitoring**
Roger Austin,
Blood Bank,
Taranaki Base Hospital,
New Plymouth.

Measurement recording and archiving of temperatures of refrigerators and freezers, both within the blood bank and at remote locations to ensure that blood, blood products, specimens and reagents continuously meet code of GMP requirements, has been achieved with a centralised computer based monitoring system.

28. **The Importance Of Performing In-House QC On Commercial Brands Of Saline**
Gerry Heta,

STAPHAUREX PLUS*

STAPHYLOCOCCUS

RAPID LATEX TEST

Staphylococcus aureus

Distinguishing features :

Gram positive, spherical cocci 0,8-1 µm in diameter, occurring in grape-like clusters, with some single or paired cells ; non-sporing, non-motile predominantly unencapsulated ; colonies frequently golden yellow in colour. Found in the nasal cavity, skin flora and wounds ; responsible for suppurative lesions, food poisoning and cross-infections particularly in hospitals

Identification of *Staphylococcus aureus* methicillin sensitive and methicillin resistant strains

- **3 tests in one for detection of**
  - clumping factor
  - protein A
  - surface antigens characteristic of *S.aureus*

by sensitising the test latex with

- **fibrinogen**
  to detect clumping factor
- **rabbit IgG**
  specific for *S.aureus* strains that are negative with traditional tests (1st generation)
  The Fc portion of IgG reacts with protein A while the specific Fab portions react with cell surface antigens

- **Performance of the test**
  Sensitivity on methicillin sensitive or resistant strains
  Independant studies carried out in Europe and USA
  Fresh isolates MSSA : 99,6 % - MRSA : 99,6 %
  Stored isolates MSSA : 98,2 % - MRSA : 99,7 %

- **Improved specificity**
  with the control latex sensitised with bovine serum protein

- **The easiest-test-to read** with yellow latex and black background

- **Rapid and easy-to-use test** : reading in 30 seconds

Staphaurex Plus	ZL33 (150 tests)	ZL34 (450 tests)
Test latex (yellow cap and label)	1 dropper bottle (6 ml)	3 dropper bottles (3 x 6 ml)
Control latex (grey cap and label)	1 dropper bottle (6 ml)	3 dropper bottles (3 x 6 ml)
Disposable reaction cards	52	2 x 78
Disposable mixing sticks	2 x 150	not supplied

Latex range : Staphaurex Plus, Streptex, Wellcogen, Wellcolex, Rotavirus, Cryptococcus.

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murex

Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

The Blood Bank at Auckland Hospital has been purchasing a commercial phosphate buffered saline solution from a supplier for many years. The QC results of the manufacturer were accepted as being correct and 10L bottles of solution were attached to the cell-washers as required.

Intermittent problems occurred in June 1994 and developed into major problems in July 1994 when it was discovered that antibody screens performed by a 2-stage enzyme technique were positive by Coombs Technique.

My talk will examine the reasons, the investigation undertaken and the resultant change in the practices of the supplier and the Blood Bank.

29. GMP Accreditation By TGA Of Green Cross Blood Collection Bags

Gerard Volk,
Medi-Cross,
Sydney.

A brief outline of the requirements in Australia for blood collection bags "To be listed by the Therapeutic Goods Administration" as a pre-requisite for use in Australia.

30. A Review Of BTS QM Procedures

David Fisher,
Laboratory,
Masterton Hospital,
Masterton.

A summary of the response of the New Zealand BTS laboratories to the Code of GMP demand for formal Quality Management procedures.

Bring your brickbats and bouquets.

31. Accreditation – Friend Or Foe?

Graeme Walker,
Telarc New Zealand,
Auckland.

The Telarc Medical Laboratory Programme has offered accreditation to Transfusion Medicine Departments, on a voluntary basis, for more than 15 years.

More recently, mandatory reviews of blood banks conducted by the Ministry of Health's Good Manufacturing Practice teams, have also been implemented.

The increased frequency of audit activity within blood banks, whether voluntary or mandatory, has prompted some Transfusion Medicine Departments to ponder, Is Accreditation Worthwhile?

While not attempting to answer this question, this presentation by Telarc summarises the standards, the criteria and the procedures upon which the Telarc Accreditation Programme is based. In particular, the technical criteria for the accreditation of Transfusion medicine Departments is under review, and an invitation is extended to the NICE Weekend participants to contribute to the development of the proposed criteria document.

By carefully researching existing national and international guidelines for Transfusion Medicine, by considering current New Zealand blood bank practice and by considering the input from New Zealand blood bank personnel, it is envisaged that the new criteria being developed by Telarc will, within limits, be developed for New Zealand Blood Banks by New Zealand Transfusion Medicine specialists.

32. Unit Collection Weights: Statistical Process Control

Margaret Dickinson,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

The Australian Code of Good Manufacturing Practice for Therapeutic Goods, Blood and Blood Products, July 1992, Chapter 8, Sect 819 requires 1% of all blood units to be weighed and the actual volume of blood calculated.

At the Auckland Regional Blood Centre, the volume of blood collected into a donation bag is controlled by "go-no go" gauging. Gauges are monitored daily, however quantitative data to allow monitoring of collection volumes is not generated.

Daily random sampling of units (n=6), weighing and plotting of x – R Statistical control charts, demonstrates to process control for CLX-CPD2 packs.

33. Tie Your Donor Down

Marie Willson,
Blood Bank,
Gisborne Hospital,
Gisborne.

Major errors can occur when you least expect them. It only takes a brief lapse in attention. An account of a potentially disastrous error is presented.

34. Transfusion Practice Outside The Lab Door

Nicola Beamish,
Blood Bank,
Taranaki Base Hospital,
New Plymouth.

Summary of the findings of a Quality Probe (College of American pathologists) looking at possible causes of transfusion error outside of the laboratory. We looked at procedures used from the time the unit was issued at the laboratory until the first 20 minutes of the transfusion had passed.

The study raised several questions that warrant discussion, such as:
– The need for laboratory involvement in nursing protocols and audits.
– The lack of protocols and procedures for medical staff.
– The need for audits or studies such as this to highlight deficiencies and prompt improvements.

35. Oh No! Oh No! Not Again!

Susan Duncan,
Medical Laboratory,
Wanganui.

Two cases of laboratory error are reviewed.

The circumstances leading up to each error, contributing factors, similarities and the prevention of further errors are considered.

36. How is Our Computer Quality Assurance

Paul Clark,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

As part of the ongoing Quality Assurance programme, an internal audit of our computers was carried out. The questions, the results and what we would do differently next time will be discussed.

37. Internal Audit Feedback

Lorraine Rimmer,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

In 1994, Auckland Regional Blood Centre carried out an extensive Internal Audit Programme. Following these, senior and middle managers received a personalised letter including a questionnaire. 65% of the managers replied. Form the questionnaire the feedback indicated that the general opinion of those audited was that the audits were well conducted and they found them of great help.

38. Australian Manufactured Blood Grouping Monoclonals Evaluated By New Technologies

Jeanette Corley,
Commonwealth Serum Laboratories Ltd,
Parkville.

Over the last ten years a number of divergent technologies are finding applications within the blood banking laboratory.

Australian manufactured monoclonal blood grouping reagents have been trialled and adapted to some of these technologies. The results of the evaluations in comparison with traditional techniques show a high degree of correlation.

These emerging technologies in association with the Australian manufactured monoclonal can offer many advantages for the busy laboratory.

39. **Gamma ReACT System**
Jan Pritchard,
Biotek,
Auckland.

Gamma ReACT will be presented via a brief video and verbal presentation. Gamma Re ACT is an acronym for:
Red cell
Affinity
Column
Technology

The Acronym was chosen to distinguish this new technology as one based on a totally different principle from that of the currently available micro-column test procedures. These procedures utilise the simple principle of the sieving effect of either agarose or dextran gels or glass beads on agglutinating cells.

Gamma ReACT is based on affinity adherence of red cells to an immunoreactive agarose matrix. The immunoreactive agarose has a very high affinity and specificity for IgG molecules.

40. **Ph Dependant Anti-M**
Diane Whitehead,
Department of Transfusion Medicine,
Christchurch Hospital,
Christchurch.

An elderly male patient presented for routine urology surgery work-up. An uneventful abbreviated cross-match screen led to unexpected reactions in the saline cross-match check.

An investigation was made into the solutions, buffers and samples used routinely in transfusion and blood donor accreditation.

41. **The Changing Face Of Red Cell Serology**
Linda Pinder,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

A brief review of techniques used for antibody screening over the past twenty years is presented together with a discussion of the pros and cons of the DiaMed gel technique in current use at the Auckland Regional Blood Centre.

42. **Variants Of The "S" Theme**
Alison Wilson,
Auckland Regional Blood Centre,
Auckland Hospital,
Auckland.

A brief discussion of three cases with anomalous S typing results is presented.

43. **Blood Transfusion Trust Update**
Steve Gibbons,
Canterbury Health Laboratories,
Christchurch Hospital,
Christchurch.

Over the last year, the BTT has worked with varying degrees of success on the CSL contract and the plasma credit system. These and related issues will be discussed.

The recent legal opinion that bone marrow is blood will potentially have a significant impact on the Trust and will be briefly discussed.

The most important purpose of this presentation is to receive feedback from the audience as to how the Trust can improve on its functions or help you.

Questions are welcome.

Australasian Society of Blood Transfusion

The 28th Annual Scientific Meeting of the Australasian Society of Blood Transfusion (ASBT) was held in Perth in 1994. It was a very successful meeting with an excellent scientific standard, and a large input of papers from members and invited speakers. This meeting is the main focus for the Society and attracts an increasing number of persons who are interested in contemporary transfusion practice.

The ASBT is a Society that is now well established and managed. The ASBT Council normally includes a co-opted representative of New Zealand when there is not an elected New Zealand member. New Zealand is also represented on Working Parties.

There are approximately ten New Zealand ASBT members, and this input to the Society has certainly been appreciated. It is probably the main scientific organisation in Australia and New Zealand to represent the various changes taking place in Transfusion Medicine, both on the scientific and political sides. It is an organisation that should be utilised by those working in Transfusion Medicine and Science in New Zealand. Membership of this Society is not, as with some Societies, exclusive to those who are medically qualified. The Society is rapidly moving towards a membership that is more akin to the American Association of Blood Banks (AABB) with applications invited from all persons working in Blood Transfusion regardless of their Department. Basically membership requires some form of tertiary qualification plus three years experience in Transfusion work, and there is a conditional membership clause until these levels are achieved. Membership does not exclude technologists, nurses or administrators of Blood Services, and each applicant for membership is evaluated on their particular merits. It is considered that there are numerous persons working in Blood Transfusion in New Zealand who would be eligible for membership, and participation is encouraged.

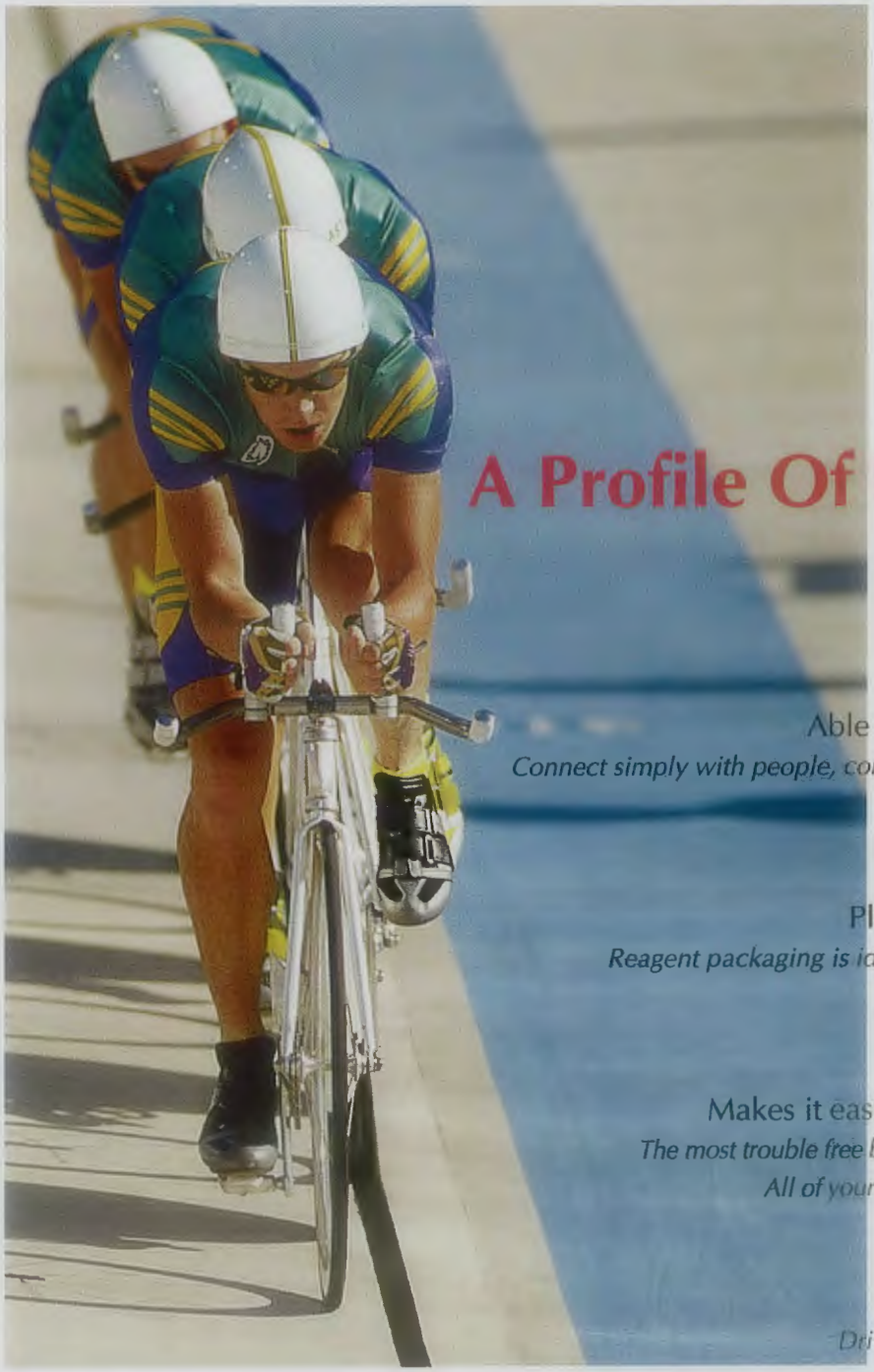
In these days of political and economic changes in Blood Transfusion Services there is some benefit in joining with a group that has the best interests of Transfusion Medicine as its basic theme. A larger New Zealand membership would enhance the Society, and perhaps provide a forum for the development of a New Zealand branch of the ASBT just as there is in some of the States of Australia. This could easily provide a focus for discussion of issues relevant to New Zealand. Furthermore, the number of staff working in Transfusion in New Zealand is not large, and there are benefits in joining with a larger group that represents both Australian and New Zealand interests.

What are the advantages of joining the Society? Firstly there is access to the Annual Scientific Meetings, the Newsletters and Broadsheets produced by the ASBT. Secondly, membership provides a structure on which local committees or organisations can be developed, and allows New Zealand input to the various committees of the Society. Thirdly there is benefit professionally in joining such a Society that represents the interest of Transfusion Medicine, bringing with it a feeling of solidarity, status and mutual cooperation.

The 1995 Annual Scientific Meeting will be held in Brisbane between October 15th-20th, and the following year in 1996 in Adelaide. In 1997 the Annual Scientific Meeting will be held in Auckland, and this is another reason to increase New Zealand membership.

I would encourage those working in Blood Transfusion to seriously consider the ASBT as an organisation that should be more fully supported by New Zealand, as it is basically our Society and is developed to represent interests of Blood Transfusion in Australia and New Zealand. Details of membership requirements are available from any ASBT member; the annual subscription is A$50. (Or write to the undersigned)

Dr D G Woodfield
MEDICAL DIRECTOR
AUCKLAND REGIONAL BLOOD SERVICE



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CLINICAL DIAGNOSTICS

Haematology

Special Interest Group

Convenor: Ross Anderson
c/o Diagnostic Laboratory,
Symonds Street,
AUCKLAND.

A SEMINAR IN THE CYTOPENIAS including Thrombocytopenia, Pure Red Cell Aplasia, Leucopenia, and much more.

Organised by Haematology Special Interest Group.
For the New Zealand Institute of Medical Laboratory Science (Inc),
Auckland

Saturday 30th September, 1995

Ernest and Marion Davis
Post Graduate Medical Centre
Auckland Hospital.

PROGRAMME

0830-0855	Registration Welcome and Opening Address Ross Anderson, Convenor, Haematology Special Interest Group.
0900-1030	THROMBOCYTOPENIAS Chairperson: Kathryn Schollum Charge Technologist, Greenlane/National Women's.
	Pathophysiology of Thrombocytopenia Dr. George Chan, Specialist Haematologist, Greenlane/National Women's Hospital. Immune thrombocytopenia The emphasis will be on technical aspects of detection of platelet antibodies. Dr. Yvonne Harding Transfusion Specialist, Auckland Regional Blood Centre. Neonatal Thrombocytopenia Dr. Peter Nobbs, Paediatrician.
1030-1100	Coffee Break
1100-1230	Thrombocytopenia in Pregnancy Dr. Robyn North, Womens Health Specialist, Greenlane/National Women's Hospital. Peripheral blood film in Thrombocytopenia Kathryn Schollum, Charge Technologist Greenlane/National Women's Hospital. Spurious Thrombocytopenia Cindy Lincoln, Technologist in Charge, Routine Haematology, Auckland Hospital. Pamela Drummond, Staff Technologist, Auckland Hospital.
1230-1330	LUNCH
1330-1500	LEUCOPENIAS Chairperson: Marilyn M. Eales Charge Technologist, Middlemore Hospital.

1330-1400		An Overview of Leucopenia Comparitive Features of Disorders that Cause Neutropenia and Lymphopenia. Dr. Hilary Blacklock, Consultant Haematologist. Middlemore Hospital.
1400-1420		Case History: (i) Cyclic Neutropenia, Ailsa Bunker, Staff Technologist, Middlemore Hospital. (ii) Felty's Syndrome Haematology Registrar, Middlemore Hospital.
1420-1440		Drugs Associated with Leucopenia. Dr. Sharon Jackson, Consultant Haematologist, Middlemore Hospital.
1440-1500		Case History: (i) Drug Induced Neutropenia, Philippa Sarcich, Staff Technologist, Middlemore Hospital. (ii) Colchicine Poisoning, Lee Glogoski, Technologist in Charge, Blood Film Morphology, Middlemore Hospital.
1500-1530		COFFEE BREAK
1530-1700		OTHER PENIAS Chairperson Stuart Duncan, Charge Technologist, Auckland Hospital
1530-1545		Introduction from Chair
1545-1600		Case History: (i) Thymoma Dr. Graeme Taylor Registrar, Auckland Hospital.
1600-1615		(ii) PNH Kristen Kelly, Technologist in Charge, Special Haematology Auckland Hospital.
1615-1650		Diamond Blackfan/Transient Erthroblastopenia of Childhood/ Fanconi's anaemia. Dr. Lochie Teague, Consultant Paediatric Haematologist, Auckland Starship Hospital.
1700	Close	Horst Stunza Charge Technologist, Medlab.

REGISTRATION

Registration fee is $50.00 including GST.
A discount of $10.00 is available for members of N.Z.I.M.L.S.
Registration is limited to 80 participants.
Closing date for registration: **Friday 8th September, 1995.**
Late Registrations may be accepted if places are available. Late Registration (after 8th September) $55.00
If your Registration must be cancelled, your fees less 10% for administrative costs, will be returned if we are notified at least two weeks in advance of the seminar. No refunds will be made after this date. The registration Fee covers the costs of lunches, postage, stationery, phone calls etc.

REGISTRATION FORM
A SEMINAR IN THE CYTOPENIAS.

❑ $50.00 (N.Z.) Registration Fee enclosed.
❑ $40.00 (N.Z.) Discounted Registration Fee (NZIMLS Member) enclosed.
Make Cheque payable to: HAEMATOLOGY SPECIAL INTEREST GROUP.
Post To: Horst Stunzer,
c/o Medlab,
CPO Box 4120,
AUCKLAND.

Please Print — Please Circle

Last Name:..... Dr. Mr. Miss. Mrs. Ms.

First Name.....

Address:.....

.....

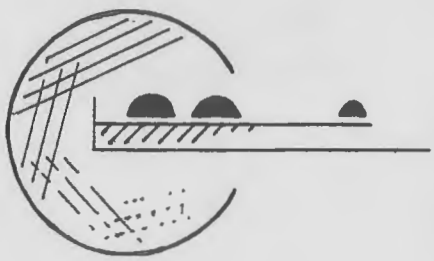
Laboratory.....

Telephone:.....

Microbiology

Special Interest Group

Convenor: Jan Deroles – Main
Contact Address: Medical Diagnostics
Palmerston North



Report from the 'Potpourri' seminar held at Rotorua Hospital on 25th/26th March.

Eighty-three people attended the seminar, which commenced at 1030hrs on Saturday morning, and continued almost without pause until 1830hrs. A total of twenty-six talks on subjects ranging from parasitology to molecular biology kept us all very occupied for the whole time. Added to the interest of the presentations, was the welcome opportunity to discuss common problems and exchange ideas.

All the presentations were of a high standard, and speakers had obviously gone to considerable trouble in the preparation of their talks and of the visual material which accompanied them. The MSIG once again extends its thanks to all contributors. This year the first prize was awarded to Sharon Paul of Green Lane/National Women's, who spoke on *'Burkholderia Species*: Identification and Clinical Implications' Sharon wins $500 to enable her to attend a conference of her choice. Consolation prizes were awarded to Mike Brokenshire for his talk on Chlamydia Confirmation Experiences, Jackie Wright (ESR, Porirua) who updated us on E.coli 0157 and other vero-toxin producing E.coli, and to Jill Jones of Northland Pathology who ensured that Mycology was not forgotten. Jill addressed us on the subject of *Trichophyton tonsurans*. A prize for the most improved speaker was awarded to Rebecca Davidson of Diagnostic Laboratory, Auckland, for managing to make a potentially boring subject most interesting and entertaining – even at gone five o'clock in the afternoon!!!! Rebecca addressed us on the subject of 'Equipment Monitoring by PC'.

NZIMLS members who attended were awarded certificates of attendance as part of the continuing education points scheme being run by NZIMLS.

A ride in the Gondola up to the Skyline Restaurant for dinner was a welcome relaxation after the long day.

Sunday began at the indecent hour of nine-thirty a.m. The ANTS group presented a very lively and interesting antibiotic workshop. The ANTS committee consists of: Jennifer Mitchell (Diagnostic Laboratories), David Riley (Diagnostic Laboratories), Nigel Yates (Middlemore Hospital), Sharon Paul (Green Lane/National Women's). The chairperson is Keith Shore of Auckland Hospital.

For the first part of the programme we were divided into groups to discuss a series of problems:

- Susceptibility testing of anaerobes: Should we do it at all? If so how and in what circumstances? The general feeling was that susceptibility testing should only be done on important isolates. Some labs are using the 'E' test for their anaerobes.
- You are performing QC tests for the NCCLS method of susceptibility testing. The zone for penicillin against Staph aureus is consistently out of range. What should you do? The answer was to check the whole system i.e. media, incubation temperature, control organism, disks. Results should be held back until the problem is solved, and the trend of results checked to see if there has been a change in the pattern.

- Your laboratory is changing from Joan Stokes to NCCLS for all susceptibility testing. What should you do with those organisms not covered in the NCCLS guidelines? Several options were suggested: Don't report sensitivities, use the 'E' test for important isolates e.g. from blood cultures, establish your own range for your own medium/disk/organism combinations.
- E.coli has been isolated from a patient's urine and blood cultures. The isolate is sensitive to ceftazidime by disk and MIC (2.0 ugm/ml). The patient is not responding to treatment. What further investigations should you do? A test for extended spectrum B-lactamase should be done. The MIC of 2.0ugm/ml is eight-fold higher than the expected MIC of 0.25 ugm/ml for E.coli. This should indicate a need for further investigation. ESBL could be tested for by disk (double disk synergy with augmentin and a third generation cephalosporin), or by MIC with and without augmentin. An 'E' test strip is now available for detection of ESBL. ESBL have been mainly seen in Klebsiella species, but are now being seen in E.coli.
- The second part of the morning was spent in lively debate on the question: "The Joan Stokes Method is a suitable Method for Susceptibility Testing in Small Laboratories". Some serious arguments for and against emerged, and on a lighter note the affirmative pointed out that the Joan Stokes test is BRITISH!, and Joan Stokes is a nice lady. In reply to the negative, Shirley pointed out that she had *met* Joan and it certainly wasn't in the 18th century! The general conclusion was that there is no easy answer to this question.

We all then departed for home after a well-spent weekend. Our thanks go to Jan Deroles-Main for organising the seminar, and to Anne Patterson for arranging the venue and assisting with accommodation.

A complete list of speakers together with abstracts will be published in the next journal.

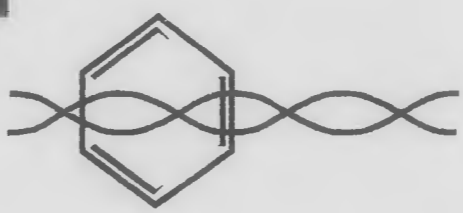
Histology

Special Interest Group

Convenor: Elaine Mullins
Contract Address: C/o Pathology, Taranaki Base Hospital, Private Bag, New Plymouth
Phone: 06 7536139 Ext 7874
Fax: 06 7532956

Biochemistry

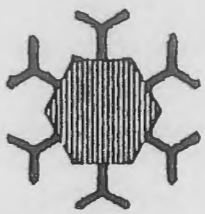
Special Interest Group



Convenor: Alison Buchanan
Clinical Biochemistry
Main Building
Auckland Hospital
Ph: (09) 307 4949
Ext: 7553
Fax: (09) 307 4939

Immunology

Special Interest Group



Convenor: Ian Wilkinson
Serology Section - Microbiology Department
Canterbury Health Laboratories
Private Bag 151
CHRISTCHURCH

THE Pacific WAY

The Birth of a Pacific Island Cultural Resource Unit

On Friday 31st March, 1995, a Pacific Islands' Cultural Unit opened at South Auckland Health's Middlemore Hospital. This is an initiative of South Auckland Health reflecting a commitment to working with the Pacific Islands' Community. The unit is based at Middlemore Hospital and staffed by Pacific Islands people working alongside other Health Care Providers.

Services Provided:

Consultancy/Advisory Involvement.

Education: Health Promotion and early detection.
Health self management.
Treatments and interventions.
Cultural approach to health and disability support services.

Prevention and early interventions.

Provide cultural intervention.

Provide cultural awareness training and sessions for staff, service providers and Pacific Islands' community.

Provide and maintain communication links with patients, families, staff, service providers and communities.

Provide information and help people to access services.

Networking with staff, service providers and Pacific Island community.

Develop new initiatives, health activities and participation of Pacific Islands' Communities.

Contact Person: Christina Atoa Tapu, Manager, Phone: 276-0000 Extension 8823.

Christina Tapu, Registered Nurse, wife, mother and highly motivated communicator has been Middlemore's Hospital Cultural Liaison Officer since 1989.

When Dr Lester Levy was appointed as Chief Executive Officer of Middlemore Hospital in 1993 opportunities came to contribute to the shared vision for Middlemore's future. The Pacific Island staff network, met and drafted a proposal for a Pacific Island Cultural unit. This was strongly supported by Dr Levy. Chartered Accountants, Coopers and Lybrand, were asked to help plan with the Pacific Island network.

On the 31st March, the unit finally got a home of its own. In true Island tradition it was a cultural event with dignatories from all over the country, Middlemore Hospital and the media, all invited to join the celebrations. Distinguished guests included

The Honourable Katherine O'Reagan, Associate Minister of Health,

Mr Apii Rongo Raea, Chief Executive Officer, Ministery of Pacific Island Affairs,

Rev. Elder Lemuela, Pacific Island Presbyterian Church,

Mr Bill Teariki, Consulate General, Cook Islands,

Dr Leopino Foliaki, Pacific Islands' Health Consultant,

Mr Tanuvasa P. Gray, Chairman Advisory Board, Pacific Islands' Cultural Resource Unit,

Mr Harold Titter, Chairman, North Health,

His Worship the Mayor, Manukau City, Sir Barry Curtis,

Mr Terry Harris, Chairman, Board of Directors, South Auckland Health,

Dr Lester Levy, Chief Executive Officer, South Auckland Health,

Mrs Betty Hunapo, Cultural Advisor, South Auckland Health.

A service of blessing of the unit was conducted by the Rev. Manatoa Tavelia, Member of the South Auckland Health Advisory Board. Traditional Pacific Island entertainment was provided during the luncheon which followed the official opening addresses.

Now that the Pacific Island Cultural Resource Unit has a building to call home within the hospital grounds, and is more accessible, the staff members hope to spread the message of a cultural understanding even further.

Cultural Awareness – Who Needs It?

Report on Cultural Awareness Course, Middlemore Hospital, by Ailsa Bunker, MNZIMLS

45% of Pacific Island people in New Zealand live in South Auckland. Middlemore Hospital, based in South Auckland, has taken the initiative and opened a Pacific Island Cultural Resource Unit.

I had the privilege of attending a Cultural Awareness Course on March, 20th, 1995. It was an enjoyable, well structured day, organised by Christina Tapu and Iva Singsam of the Pacific Island Cultural Resource Unit. A group of about 35 people listened to Pacific Island health professionals speaking about Pacific Island culture and communication.

Our hospital employers are encouraging us to be patient focussed but we cannot do this without understanding our clients better. It is obvious to me, from living and working in South Auckland, that we have a large number of Pacific Island people in this area, therefore it makes sense to have courses to understand each other better.

I learnt many things on this course. There are definitely communication differences but unless we are aware of them misunderstandings can arise. Some body language signals can mean directly the opposite between Pacific Island and European cultures. (See list below)

The main thing I learnt from the day is that it is not enough to just care about people. We also need to understand where the other person is coming from. To "walk in the other person's shoes," at least mentally, requires some knowledge of the other person's culture. We are not all able to travel to immerse ourselves in other cultures but we can go to excellent courses such as those put on by the Pacific Island Cultural Resource Unit. This way we can learn quickly and therefore hopefully avoid making unnecessary social false steps.

So, when I say "Cultural Awareness – who needs it?" – I think we all do.

The Cultural Awareness study day was both rewarding and enjoyable; a course I highly recommend if you have the opportunity.

Pacific Island Greetings

Tonga	–	Malo e lelei
Fiji	–	Ni sa bula
Tokelau	–	Taloha ni
Cook Islands	–	Kia Orana
Niue	–	Fakalofa lahi atu
Samoa	–	Talofa

South Auckland Health Logo

The logo was designed by a final year graphic design student from Manukau Polytechnic, Tania Robinson of Pukekohe.

Tania says the stylised figures in the logo represent the variety of cultures in the South Auckland community. The outlying figures support the middle figure, signifying not only the service and support available at South Auckland Health but also the interconnections between the various services. The linked arms show the bonds between the main Middlemore Hospital site and the outlying facilities.

The figures are stepping forward, as is South Auckland Health, into the future of health care in New Zealand.

South Auckland HEALTH

Cultural Differences in Social Behaviour

Specific cues Head tilt and/or eyebrow raise	Polynesians Convey meaning by body language and listen by watching	Pakehas Convey meaning by voice and word and listen by attending to words
Unresponsive looking ahead or down	Agreement	Questioning or surprise
Huntched shoulders	Disagreement (verbal disagreement is rare)	Failure to understand
Quick frowns	"I don't know"	"I don't care"
Sniff	Puzzlement, please help.	Disapproval
Hand down and in to chest	Admit mistake, apologise	Disdain
Touching and hugging	Come here (Samoan)	It doesn't matter (Maori or Pakeha)
Standing up to greet	Welcome, support, desire for friendship, liking, gratitude or apology	Close friendship only – otherwise seen as excessive or hypocrisy
Sitting down to greet	Sign of superior status	Sign of respect
Wandering eyes, looking away	Sign of respect	Sign of superior status
Attentive and steady gaze	Politeness	Boredom, evasion or guilt
Using imperatives ("Do this")	Opposition or conflict	Undivided attention
Requests as a question	Acceptable	An order
Double negative e.g., "You don't want it, do you"	Uncertainty	Politeness
Pauses and silences	"No" (I do want it) Time to think, being companionable and relaxed	"Yes" (I do want it) Unresponsive or stuipd. Creates awkwardness unless with intimates.

What is written in scientific journals and what is really meant!

"It is well known that . . ."
I have not looked up the reference.

"While definite answers are not provided . . ."
The experiment failed but I hope to get a paper out of it.

"This method was chosen as the most suitable . . ."
Borrowed from the lab next door.

"This hypothesis is of importance . . ."
Of interest to me.

"Two of the subjects were selected for follow-up studies . . ."
The other subjects gave negative results.

"Typical results from the study are shown in Table 1 . . ."
The best results were chosen.

"It may be that . . ."
I think that.

"It is believed that . . ."
A few others think so too.

"Additional follow-up studies are required."
I don"t know what the results mean.

"Thanks are due to Joe Bloggs for technical assistance and John Doe for valuable discussions."
Joe did all the work and John explained what it meant.

"The results were somewhat disappointing."
Worse than placebo.

"The results were encouraging."
One of the rats survived.

"Equivocal results were obtained."
We can't explain why all the rats died.

"Results obtained are worthy of further studies."
I hope to get another research grant.

"We have previously shown that . . ."
I am boosting my citation index.

1994 Specialist Certificate Examination

Medical Cytology

Paper 1

Question 1a
Although knowledge of hormonal effects was good there was very little histologic detail of endometrium.

Question 1b
Reasonable cytologic detail of pre-neoplastic – neoplastic sequence, but again little accompanying histologic description. One candidate appeared confused in naming dysplasias as currently favoured.

Question 2a
The principles involved in the PAP staining mentioned were not adequately addressed.

Question 2b
Answers appeared to be rather more disorganised than expected at this level.

Questions 3 & 4
In general candidates displayed adequate knowledge of cytologic detail and some questions were answered well.

I am concerned that there is insufficient detail with the syllabus to indicate the depth of knowledge and detail required in some areas and that therefore the candidates are unaware of what may be expected of them at this level. There may, it appears, be a very variable level of teaching available in some areas.

Paper 2

Overall all questions were not answered to an acceptable level.

Question 1
Poorly answered by all candidates. At this level, candidates should have a thorough knowledge of the 'commercial' systems available, their theoretic workings and advantages/disadvantages of one or the other.

Question 2
Again, poorly answered. Candidates gave detailed answers of malignancies but mostly omitted benign lesions which often cause the greatest diagnostic difficulties.

Question 3
Generally poorly answered. Candidates at this level should be more aware of specimen collection, registration, importance of clinical details, Q.S., computerisation etc. Not just how the 'lab functions'.

Biochemistry

General Comments:
Paper one continues to be a challenge to candidates in time allocation and concise answering. In all cases candidates filled more answer book space for paper one than for paper two despite the fact that both examinations were three hours. One candidate only completed six of the eight required questions in the time allocated although one other question was partially attempted.

There was a huge variation within individual candidates in the level of knowledge shown for individual questions. The largest range was from 90% to 15% for a single candidate. In all cases candidates could have improved their marks by simply using good examination technique.

Generally, all questions were attempted evenly by all candidates with the exception of question 1 in paper 1. This question was a combination of a calculation question and a lab management question. On reflection I felt that the question was probably too involved for paper 1 and perhaps would have been better in paper 2. The one candidate that attempted the question scored 90% but obviously spent too much time on it.

It would have been nice to see candidates express an opinion in an answer or draw on their own laboratory experiences. In the question on calcium candidates were asked to list common causes of hypercalcaemia. Nobody said why the common causes they listed were seen by them. eg. we have a large geriatric population thus we see a lot of hypercalcaemia of malignancy.

I was surprised at the lack of some basic facts in relatively simple questions. Of the candidates who answered the question on osmolality several did not mention colligative properties of solutions in their discussion of the principle of the technique.

Finally, I must question the position of Specialist level in the general scheme of things. The university qualified people are now coming through, one wonders if they will be interested or whether fellowship would be more attractive. We had only three candidates in 93 and five this year. The preparation of the scripts, marking schedules, marking of the papers and writing of this report are all major tasks undertaken by volunteers for a small number of people. The remuneration offered by the Institute is only a very token payment in respect of the hours spent.

Paper One

Question 6
4/5 candidates answered this question, of which all showed a comprehensive knowledge of the subject.

Question 7
4/5 candidates attempted this question, the method posing little problem to most students. Section B was generally poorly answered by most students.

Question 8
5/5 candidates attempted this question, overall the answers were disappointing. A higher depth of knowledge on the use of fructosamine and HbA 1c was expected from candidates.
Very few candidates had anything more than the basic knowledge on rate and endpoint reactions. Calculations were done poorly with most students making logic errors in their working.

Question 9
5/5 candidates attempted this question, generally answering well. Safety is obviously a high priority in most labs.

Question 10
3/5 candidates attempted this question, with some good detailed answers.

Overall this section of the paper was answered well, there were some questions that candidates should have had more basic knowledge in (such as the calculations, glycated proteins and pseudocholinesterase etc).

Paper Two

Question 4
5/5 candidates attempted this question, with only 2/5 obtaining passes. Most candidates had limited knowledge of the pathway involved. Those that did know the pathway obtained very good marks.

Question 5
4/5 candidates attempted this question, all providing well thought out answers.

Question 6
3/5 candidates attempted this question, with generally good marks.

Overall this section of the paper was answered OK.

Haematology

General
In general the performance of all candidates was disappointing. There appeared to be little advancement of the candidates' knowledge since the certificate level and scant evidence of background reading or experience gained at the bench. This may reflect lack of continuing education in the candidates' places of work and/or inadequate appreciation of the knowledge required for the specialist examination.

Paper 1
Question 1. For the third year running candidates were invited to demonstrate their knowledge of a reference method for WBC differentials and for the third year running this question was answered very poorly. Only one candidate gained more than 50% in this question and was the only candidate to mention testing both those with and without a left shift. No candidate mentioned the reference NCCLS WBC differential.

Question 2. This question was answered adequately with two of the three candidates gaining 50% or more.

Question 3. This question was answered adequately with two of the three candidates gaining 50% or more.

Question 4. One candidate answered this question well, one adequately and one poorly. Only one candidate demonstrated an understanding of what the correlation coefficient measures.

Question 5. Two of the three candidates answered this question well.

Question 6. This question was included because the question on delta check was answered poorly last year and with the increasing use of computers in laboratories an understanding of the use of delta checks is becoming increasingly important. One candidate answered adequately, the other two poorly.

Questions 7 to 11. See general comment.

Question 12. Only one candidate can construct a proper red cell osmotic fragility curve from the data supplied. This is very disappointing because the other candidates do not even know how to (or bother to) copy from the osmotic fragility curves given in parts (c) and (c) of this question. The interpretations of the osmotic fragility curves were done very poorly.

Question 13. Poorly answered question for a problem not infrequently observed in the day-to-day practice.

Question 14. Considering that not many laboratories actually perform chromosome analysis, this question is better answered than the other more practical questions in this paper. It is worrying if this reflects candidates only read and commit to memory and not think about what they actually do.

Question 15. Interpretation of NAP score result is disappointing.

Question 16. While in general candidates were able to outline the biochemical reactions, there is lack of understanding of the test/assay requirements.

Question 17. Considering that only basic information is required in this question, the answers given were disappointing and certainly do not put the candidates at the specialist level.

Question 18. No candidate was able to satisfactorily answer this question.

Question 19. Considering that these equipment are found in every laboratory and the poor answers given, one has to wonder how much the candidates have involved themselves in the quality control of these items.

Question 20. Candidates have absolutely no idea about the aspects covered in this question even though we are now practising in a more and more legalistic and adverse environment.

Paper 2

Question 1. Although leucocytosis is commonly encountered in the laboratory practice and the listing of causes is on the whole satisfactory, the section on peripheral blood features useful in distinguishing various causes of leucocytosis is disapponting. Either blood cell morphology has gone out of the window or the candidates have not applied themselves to what they are doing everyday in the laboratory.

Question 2. Despite the explicit instruction in the question about organising the information in the answer this question remains poorly answered with information haphazardly presented. The information remains superficial, and no candidate was able to satisfactorily indicate the significance of diagnosing thalassemia traits.

Question 3 and 4. See general comment.

Question 5. No candidate answered this question on the planning of a turn around time audit.

Question 6. Two candidates answered this question on quality control in microscopy. Both interpreted the question to mean quality assurance rather than quality control so that they both obtained poor marks. Quality control was mentioned by both of them but not how they would go about carrying it out.

Microbiology

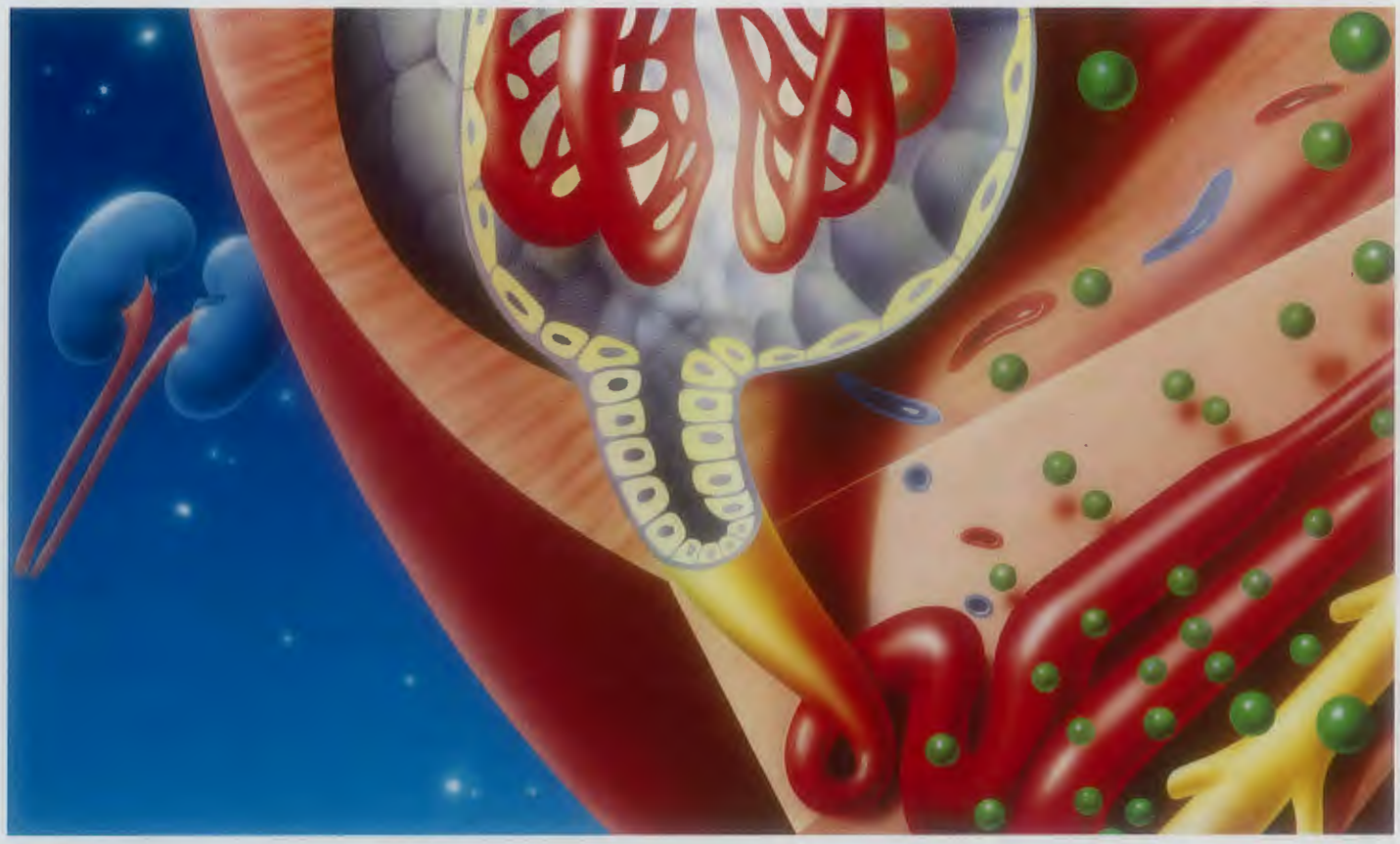
This year the standard was good with 4 of the 5 candidates being successful.

There was considerable unevenness in the individual candidates knowledge with each candidate answering some questions well while others were answered poorly. The questions that the candidates had difficulty with were different for each candidate.

This probably reflects the work environment and experience of each individual and the specialization that tends to occur at this level.

It is also probably a reflection on the very broad range of topics

Simple and efficient in one.
Urinary protein measurement with Behring products.



Quantitation of urinary proteins with Behring immunoassays ensures objective results for improved diagnosis and patient monitoring.

Behring provides the appropriate solutions.

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that are specified in the syllabus.

Paper One:
Mycology and Parasitology were well done although marks were often lost by students who omitted the obvious e.g. media or conditions of incubation. Candidates tended to have a good working knowledge of the less common bacterial species but seemed less familiar with the background of some of the important antimicrobial agents that are now in use.

Paper Two:
Candidates varied greatly in their knowledge in the topics covered in this paper. Generally their understanding of the importance of coagulase negative staphylococci was good.

Though many obviously had a good working knowledge of an automated susceptibility/identification instrument it was disappointing that few understood the wide range of factors that must be considered when choosing such a machine. Knowledge of this type is important at this level.

Exam technique throughout both papers was generally good with most of the candidates managing to provide answers that were relevant to the questions asked.

Publications in Overseas Medical Laboratory Science Journals

We exchange journals with various overseas medical laboratory science organisations. These journals are kept in the Philson Library of the Auckland Medical School. Members wishing to obtain articles of interest should forward their requests through their own institution's medical library through the Interloan service.

Australian Journal of Medical Science. 1995; Volume: 16, No: 1.

Short R. Haematological effects of human immunodeficiency virus infection. p.2-15.
Tristam S. Extended spectrum B-lactamases: Are we losing the battle? p. 16-25.
Casten RA., Peripheral blood stem cell transplantation. p. 26-35.
Williams AC, Vaccari J. Patient identification errors in a stand-alone clinical laboratory computer system. p. 36-8.
Manandhar R, Bettiol SS, Goldsmith JM, Ott AK. First report of the isolation of *Escherichia coli* 0157:H – in Tasmania.

Clinical Laboratory Science 1995. Volume: 8, No: 1.

Ward KM. Teaching instrument selection and evaluation: Point-of-care testing as the model. p. 12-4.
Allman GW, Anderson SC. Protein C: Rocket EID versus chromogenic (coatest) methods. p. 14-7.
Mull RW. Comparison of three rapid test kits for detection of Human Immunodeficiency Virus in blood. p. 17-9.
Gorman LS. Aging: Laboratory testing and theories. p. 24-30.
Boosalis M G, Stiles NC. Nutritional assessment in the elderly: Biochemical analyses. p. 31-3.
Fowler JB. Medication monitoring in the elderly. p. 34-8.
Stiles NC, Boosalis MG. Case report of zinc deficiency in an elderly woman. p. 39-42.
Little LM. Pathogenesis of infectious disease. p. 44-9.
Guiles HJ. Perceived importance of clinical laboratory science certification: Its conceptualization and relation to employment practices. p. 50-6.

Clinical Laboratory Science 1995. Volume: 8, No: 2.

Bonhall LR. Reference preparation for proteins in human serum: the new world-wide protein standard. p. 80-3.
Guiles HJ. Perceived meaning of CLS certification as related to professional attributes and time spent with students. p. 84-6.
Walker M, Hundley JH, Junkins A. Variability in reporting neutrophilic cytoplasmic alterations in South Carolina hospital laboratories. p. 86-8.
Rudmann SV. University-based clinical laboratory science programs: Strategies for survival. p. 90-3.
Laudicina RJ. Student retention methods in clinical laboratory education programs. p. 94-101.
Lehman DC, Wilson D, Ciulla A, Hingston M. Recruitment strategies used by an allied health education program to increase student enrolment. p. 101-6.
Madden SK, Montoya ID, Richard AJ. Impact of substance abuse on tomorrow's work force. p. 107-12.
Burns ER, Lee V, Wenz B. Detection of undiagnosed coagulopathies using routine rapid heparin neutralization. p. 113-6.
Antonian L, Iacolina MD, Prouix RR. Automation of steroid radioimmunoassays using a robotics workstation. p. 117-20.

INSTITUTE BUSINESS

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Please address all correspondence to the Executive Officer, including Examination and Membership enquiries.

Editor
Rob Siebers
Dept. of Medicine, Wellington
School of Medicine, P.O. Box 7343
Wellington South.

Membership Fees and Enquiries
Membership fees for the year beginning April 1, 1994 are:

For Fellows – $88.40 GST inclusive

For Members – $88.40 GST inclusive

For Associates – $33.80 GST inclusive

For Non-practising members – $33.00 GST inclusive

All membership fees, change of address or particulars, applications for membership or changes in status should be sent to the Executive Officer at the address given above.
Members wishing to receive their publications by airmail should contact the Editor to make the necessary arrangement.

Membership Report – March 1995

Membership	20.02.95	14.09.94	12.08.94	02.05.94
	1177	1159	1138	1172
Less resignations	5	4	22	35
Less G.N.A.	–	–	48	21
Less deletions	–	–	–	–
Less deceased	–	–	–	–
Less duplications	–	–	–	–
	1172	**1155**	**1067**	**1116**
Plus applications	10	22	88	21
Plus reinstatements	–	–	4	1
Total	**1182**	**1177**	**1159**	**1138**

Composition				
Life Member (Fellow)	12	12	12	12
Life Member (Member)	9	9	9	9
Fellow	21	20	20	20
Member	684	684	671	662
Associate	373	368	365	355
Non Practising	56	57	56	56
Honorary	27	27	26	26
Total	1182	1177	1159	1138

Applications for Membership

J WOODS, Taupo, A. NEAL, Whakatane, P. FLAUS, Rotorua, L. MARTIN, Invercargill, J. MATTHEWS, Hamilton.

NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE 1995 CALENDAR

26 May	Applications close for Specialist Certificate examinations
26 May	Applications close for QTA examinations
28 May	Nomination forms for the election of Officers and Remits to be with the membership (60 days prior to AGM)
17 June	Nominations close for elections of Officers (4 days prior to AGM)
1 July	Annual Staffing Survey
6 July	Ballot papers to be with the membership (21 days prior to AGM)
4/5/6 July	Fellowship examinations
13 July	Annual Report and Balance Sheet to be with the membership (14 days prior to AGM)
20 July	Ballot papers and proxies to be with Executive Officer (7 days prior to AGM)
27/28 July	Council Meeting – Wellington
27 July	AGM – Wellington
10 October	Council Meeting – Australia
9-13 October	South Pacific Congress – Australia
1 November	QTA examinations
15/16 November	Specialist Certificate examinations

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New Products and Services

Ciba Corning ACS Testosterone

As part of its ongoing development program, SCIANZ Corporation is proud to announce the launch of the new ACS: 180 Testosterone assay. The introduction of this new test enables clinicians to obtain a full panel of reproductive tests in under 30 minutes, facilitating immediate clinical counselling.

This represents a dramatic improvement over the majority of testosterone tests which are labour-intensive and require several hours to perform. By automating all assays on a single instrument platform, there are obvious improvements in workflow efficiency and cost effectiveness. The full range of ACS Reproductive assays now includes:

LH, FSH, Prolactin, Progesterone, Oestradiol, Testosterone and HCG.

Measurement of testosterone is most commonly used to evaluate males who may be impotent, infertile or in general present with a lack or loss of masculine development. In these cases the testosterone levels would be depressed.

However, testosterone is also found in females, though at much lower concentrations and primarily acts as a source or substrate for oestrogen synthesis. Unlike males, it is high testosterone in females which is clinically significant.

Increased testosterone levels in females can contribute to suppression of the normal menstrual cycle with consequent infertility. Possible causes of elevated testosterone levels include conditions such as polycystic ovary, congenital adrenal hyperplasia and adrenal/ovarian tumours.

For more information on the ACS Testosterone assay please contact:

Alan Cocks at SCIANZ Corporation
Free Phone: 0800 733 464

New Tumor Marker Plus Control

Ciba Corning Diagnostics Corp. announced the release of their new Tumor Market Plus Control.

Ciba Corning's new Tumor Market Plus control is an assayed human-serum based control for monitoring procedures that test for tumor-related antigens and other ligands. Tumor Marker Plus control contains 21 cancer-related constituents including a comprehensive menu of novel and established tumor markers. Two clinically significant levels verify assay performance in normal and abnormal ranges. To enhance laboratory personnel safety this control is screened, at the donor level, for Hepatitis C.

Once reconstituted, Tumor Marker Plus constituents are stable for 14 days at 2-8°C, with the exception of calcitonin (24 hours) and IRE (5 days). One mL aliquots of Tumor Marker Plus control are stable for 30 days when frozen at -20°C. This extended stability plus convenient 3 x 2mL/level packaging ensures minimal waste.

Tumor Marker Plus control is part of Ciba Corning's extensive portfolio of chemistry, immunodiagnostics, blood gas and specialty quality control products and services. For further information about Ciba Corning's Tumor Marker Plus control, please contact

Rose-Marie Daniel
SCIANZ Corp – 0800 733 464

New Co-Oximetry Package For Full Haemoglobin and Saturated Oxygen Measurement

Ciba Corning Diagnostics is pleased to announce that the co-oximetry upgrade module for the 800 series blood gas analysers has received FDA approval. The first unit will be installed in New Zealand during May '95.

The Co-oximeter uses whole blood and reports total haemoglobin, oxygen content, fractional oxyhaemaglobin, accurate oxygen saturation and the dyshaemoglobins.

Interfering substances such as fetal Hb, lipemia and bilirubin will have minimal effect on results because of the advanced measurement technology.

The new module simply attaches to the side of any of the Ciba Corning 800 Series analysers. Only one sample insertion of less than 200µl will give full analysis of all critical blood analytes including gases, electrolytes, metabolites and full co-oximetry.

Increase in running costs of the 800 Analyser is minimal with addition of the co-oximetry module.

For further information please contact Rose-Marie Daniel, SCIANZ Corporation, Phone 09-4807060, Toll Free 0800 733 464. Fax: 09-480 7090.

Micro Quality

Micro Imaging Division (Trimtech NZ Ltd) earlier this year became a Quality Assured Supplier of NZS 9002/ISO 9002 – quality systems for the importing, distributing and servicing of scientific optical instruments (microscopes and imaging systems).

This registration, gained through Standards New Zealand, is thought to be a first for a New Zealand microscope company. "Although we are a small organisation," says Micro Imaging Manager Richard Beddek, "we have developed an expertise in niche laboratory markets, and a reputation for good, fast service – the ISO 9002 has helped us focus on the customer even more.

Staff have reacted well to the implementation, particularly as it has provided more cohesion throughout the company. It has focused everyone on the company's main aim, which is to provide quality products and services at competitive prices," he said.

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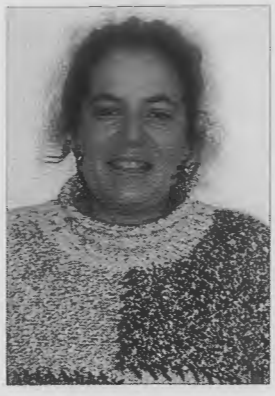

Hutt Valley Health Scholarship

Awarded to Tania Smith (left) and Bernice Smith (right), Massey University BMLS students for 1995.

These students are the inaugural recipients of this generous scholarship offered by Hutt Valley Health Ltd. It provides financial support for the 3rd and 4th years with provision of holiday employment for a minimum of 1 year following the completion of their BMLS degree.

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1995

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ABBOTT Diagnostics have again made the sum of $5,000.00 available to the Science Trust to award to members of the Institute to further their understanding in Blood Donation Infectious Disease Serology in accordance with the objectives of the Trust. Applications are invited from financial members of the Institute, not necessarily employed with the New Zealand Blood Services.

Applications will be judged on the expected benefits from an Award and where appropriate, the advancement of knowledge and understanding in Blood Donation Infectious Disease Serology.

Applications must be made on the official form and received by

The Executive Officer,
New Zealand Medical Laboratory Science Trust,
C/- Pathology Department,
Palmerston North Hospital,
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Application forms are available from Abbott Representatives or Heads of Department

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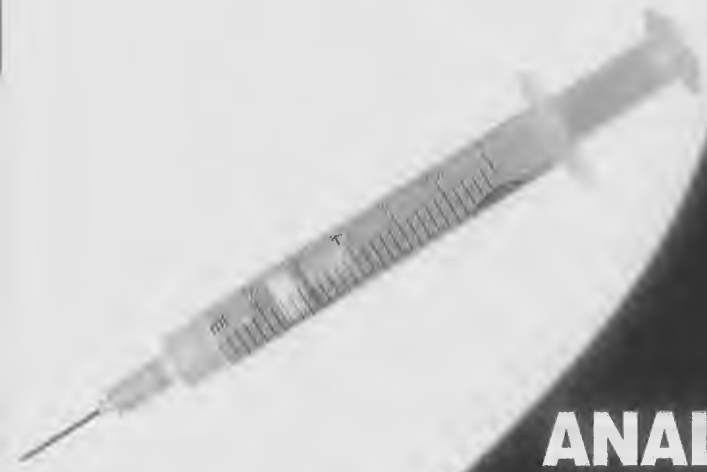

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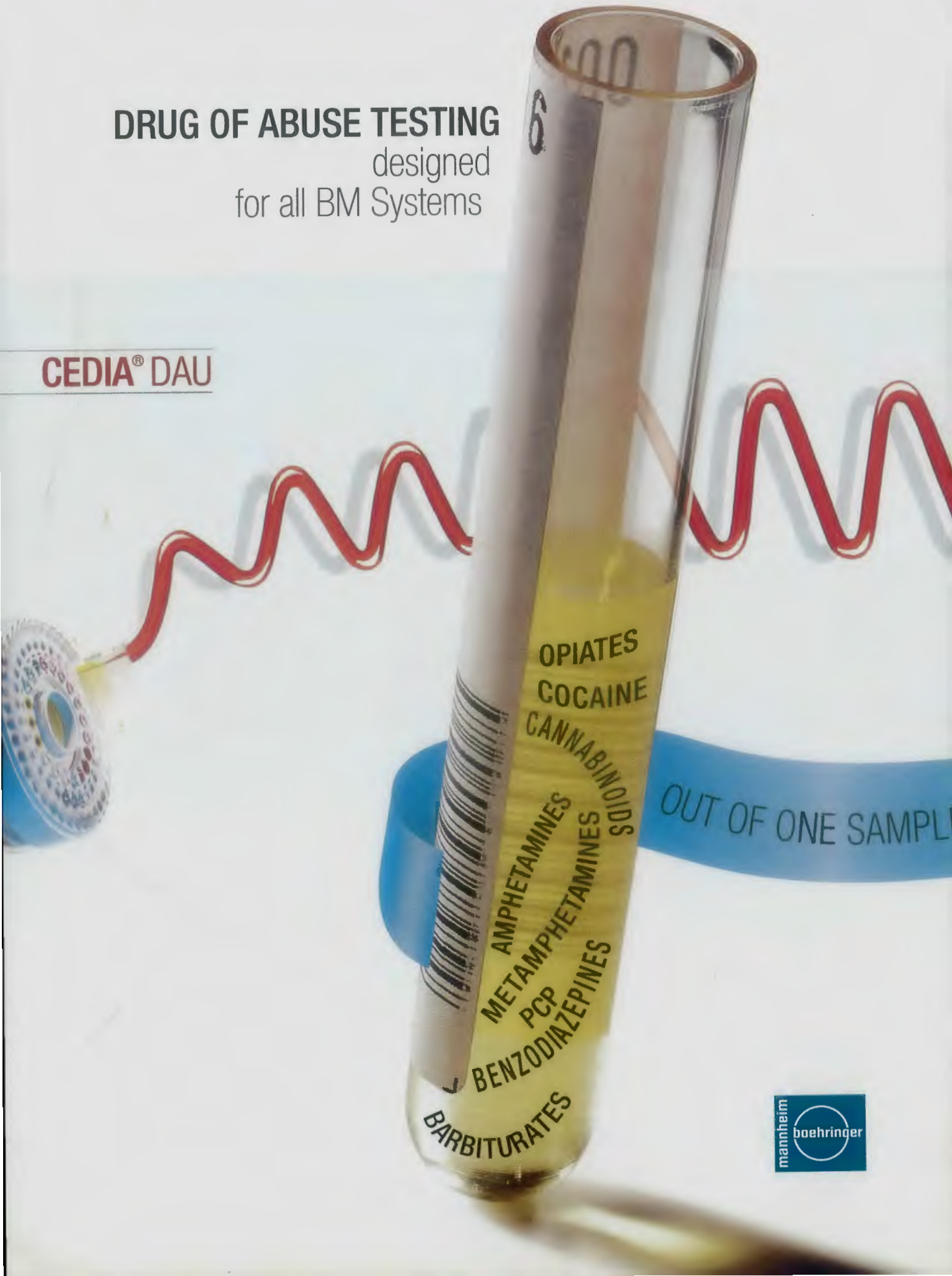

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