

# IRISH COLLEGE OF OPHTHALMOLOGISTS

# **YEARBOOK 2014-15**

**Incorporating the** 

Programme for the Annual Meeting in the Knockranny House Hotel, Westport Wednesday 13th to Friday 15th May, 2015



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#### IRISH COLLEGE OF OPHTHALMOLOGISTS

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#### COUNCIL 2014/2015

President: Marie Hickey-Dwyer
Vice President: Patricia Logan, President Elect: William Power
Secretary: Patricia Quinlan, Treasurer: Mark Cahill, Dean: Yvonne Delaney
Members of Council

Alison Blake, Paddy Condon, Paul Connell, Yvonne Delaney, Iain Harrison, Dara Kilmartin, Jeremy O Connor, Margaret Pierse, John Stokes

#### **STANDING COMMITTEES:**

Medical Ophthalmologists Committee Chairman: Alison Blake

Members: Paddy Condon, Michele Fenton, Iain Harrison, Fiona Kearns, Bernadette McCarthy, Catherine McCrann, Margaret Morgan, Susan Mullaney, Margaret Pierse, Grace O' Malley John Smith, John Traynor and Garry Treacy

Finance, Policy and Professional Standards Committee
Chairman: Mark Cahill
Members: Honorary Officers

Manpower, Education and Training Committee Chairman: Paul Connell Members: Alison Blake. Denise Curtin. Yvonne Delanev. Aoife Dovl

Members: Alison Blake, Denise Curtin, Yvonne Delaney, Aoife Doyle, Gerry Fahy, Tim Fulcher, Marie Hickey-Dwyer, Patricia Logan, Eamonn O Connell, John Stokes, Conor Murphy, and Shauna Quinn

Scientific Committee
Chairman: Jeremy O Connor
Members: Marie Hickey Dwyer, Denise Curtin, Fiona Kearns and Eugene Ng

Chairman; Mark Cahill
Members: Alison Blake, Patricia Logan, Darragh O Doherty, Kathryn McCreery and
Garry Treacy,

Public Affairs Committee

Ethics Committee
Chairman; Paddy Condon
Louis Collum, Patricia McGettrick, Eamon O Connell and Patricia Quinlan

#### LETTER FROM THE PRESIDENT

#### Dear Fellow College Members

I am delighted to welcome you all to Westport for our 2015 Annual Conference. During our meeting my term as President will draw to a close. Thank you for the honour of being your President for the past two years. Thank you to all the Council members and Committee Members for your time energy and commitment to the College during that time.

We had a comprehensive plan to re-establish Ophthalmologists in the pivotal position in the eye care of our patients and our combined efforts have us in a position to realise this goal.

By listening to all sides we have worked to find common ground and I hope, brought greater unity to our College. In the 21st century we can advance and grow only by incorporating the insights of doctors from all specialties, cultures and practice settings. There is a real opportunity for us to unify to promote the practice of ophthalmology.

The ICO is the sum of many parts and in this regard I would like to especially thank those who have been our representatives on the Primary Eye Care Services Review Group, Paul Moriarty, Alison Blake, Loretta Nolan and Kathryn McCreery. We look forward to reading the recommendations. Thanks you also, to all those College members who have been involved in our work on ethics and who have shown great commitment to ending disparities and setting standards of care that we can be proud of. The Refractive Surgery Guidelines are an important public statement of our expertise on patient safety matters.

Thank you also to our North American colleagues for their ongoing friendship, particularly Charlie Zacks and Mike Brennan and for their guidance in addressing the challenges of our increasing medical defence costs. I welcome the recent commitment from Minister Leo Varadkar to take action on the excessive costs of medical claims and his comments on the need to expand Consultant numbers in certain specialties, including ophthalmology.

I would like to acknowledge and thank Prof Eilis McGovern and her colleagues in the HSE National Doctors Training & Planning, for their ongoing support for the development of ophthalmology training in Ireland. The new medical training programme will commence this July and the College will continue to collaborate with

the HSE on the enhancement of medical ophthalmology posts as envisaged by the Clinical Programme for Ophthalmology.

I have been proud to be involved in our advocacy work on behalf of patients and to have been a public voice for ophthalmology. In these ways the ICO touches the vast majority of Ophthalmologists in this country both members and non members in tangible ways.

As my term comes to an end the ICO is well positioned to influence an uncertain future. To improve ophthalmic outcomes, to direct reform of ophthalmic education and to shape ophthalmic care delivery. To meet these challenges we need each of you and sometimes we will need help from others.

We will respect our tradition and pursue our future. The ICO rejects the notion that legislators or others can impose themselves into the patient-ophthalmologist relationship.

With Best Wishes

Marie Hickey Dwyer
President
Irish College of Ophthalmologists

May 2015

#### **REPORT OF COUNCIL 2014-2015**

#### Patricia Quinlan, Honorary Secretary

There have been four Council meetings: May 16<sup>th</sup> 2014, September 20<sup>th</sup> 2014, November 29<sup>th</sup> 2014 and February 28<sup>th</sup> 2015.

The Council Members are
Patricia Logan, Marie Hickey – Dwyer,
Patricia Quinlan, William Power, Mark
Cahill, Paddy Condon, Paul Connell,
Yvonne Delaney, Alison Blake, Iain
Harrison, Dara Kilmartin, John Stokes,
Margaret Pierse and Jeremy O
Connor.

All Council members have attended the minimum required number of meetings

#### **Changes in Council Membership**

The Council terms of Paddy Condon, Margaret Pierse and Paul Connell have concluded. On behalf of all College members I would like to thank each of them for their contribution to Council and in particular for their commitment to the College Committees.

The new appointments to Council will be announced at the AGM.

#### FINANCE, POLICY AND PROFESSIONAL STANDARDS COMMITTEE

#### Mark Cahill, Treasurer

At the close of 2014, the membership for the Irish College of Ophthalmologists stood at 189, subdivided into the following categories of membership: Ordinary, Affiliate, Senior, Life, Overseas

#### **Membership Fees**

The membership fees for the Irish College of Ophthalmologists for 2014 remained unchanged.

Ordinary members	€480.00
Affiliate members	€360.00
Overseas members	€200.00
Senior members	€160.00

The full audited accounts for the year ended 31<sup>st</sup> December 2013 have been circulated to all members and will be discussed during the AGM.

The ICO is a company limited by guarantee and the current Directors

are: Patricia Logan, Philip Cleary, Marie Hickey Dwyer and Paul Moriarty.

# Funding for provision of Specialist Training

There are currently 53 ophthalmic trainees in structured training programmes. The ICO receives funding for all BSTs and Registrars. Funding for Higher Surgical Training goes to the RCSI.

The HSE Medical Education & Training Unit committed to providing up to €237,000 in training grants to the College for the period July 2014- June 2015 to fund the provision of specialist training and associated costs. This funding is claimed retrospectively by the College based on vouched expenses incurred.

#### MANPOWER, EDUCATION & RESEARCH COMMITTEE

#### Paul Connell, Chairman

Committee Members: Alison Blake, Denise Curtin, Yvonne Delaney, Gerry Fahy, Tim Fulcher, Iain Harrison, Marie Hickey-Dwyer, Aoife Doyle, Eamon O Connell, Patricia Logan, Conor Murphy, John Stokes and Shauna Quinn.

The committee met on three occasions in 2014-15; September 20<sup>th</sup>, November 29<sup>th</sup> and February 28<sup>th</sup>.

It is with great pleasure that I report on what has been a very busy but rewarding year for the Manpower and Education Training Committee. I would like at the outset to express my sincere gratitude to all my fellow committee members and the college for their time, dedication and commitment. It is a time of great change both within the college, driven by both an internal desire to better our training programs and external pressures from the HSE and Medical Council to deliver a more streamlined training experience benchmarked to international best practice. Although a difficult year in respect of certain issues, I do feel that we are progressing very well towards clarification achieving transparency on certain issues. What follows is an itemized list of issues that arose during the year.

**Trainee Representatives:** Trainee representatives continue to attend meetings beyond their individual reports to facilitate more active engagement in issues that may affect their training. Among issues raised

during the year included 1:1 mentoring programs, sponsored study days, and an active research portal to facilitate completion of more extended research projects upon rotation. Progress is actively happening towards securing these requests.

SpR Rotations: The SpR interviews took place in March 2015 using a new interview format, consisting of individualised mini-interview formats incorporating five stations with two examiners at each station. It was very well received by all candidates and viewed very positively by our external examiner. Three new trainees were appointed (with a possibility of a fourth). An additional HST post has been recognised at the Mater Hospital to help eliminate "gap year" trainees.

All trainees have been furnished with their complete 4.5 year timetables to allow planning advance in incorporating the new additional post. A clear policy on the process for requesting rotation changes has been developed and advised to trainees to facilitate active management of the roster and accurate planning. The timelines for application of fellowship have been clarified. Family friendly training opportunities have accessed by some trainees and this is supported by the ICO and Medical Council.

The second formal exit assessment based on OSCE type examination process was conducted in December 2014 and again was a great success. I would like to thank Pat Logan, Prof Conor Murphy and Donal Brosnahan who along with myself continued to examine to create consistency moving forward.

Inspections: Following BST/ HST inspections in January 23rd/24th 2014 follow up inspections were conducted in certain units to ascertain the degree of adherence and implementation of inspection requests. All units appeared improved the to have trainee experience and continued vigilance is required in all units so as to ensure an equitable training experience available to all trainees in all units. This is an absolute necessity with the implementation of the streamlined training journey mentioned in the Dean's Report.

**Education Supervisors** (ES); ES have been identified in each unit, have pre-defined roles and it was agreed that the ES will be the source of contact to the Training Committee. This post will rotate over a 2 year period.

ICO/RCSI Advisory Committee: This body has reformed and the main remit is to provide a link between RCSI and the ICO in their educational roles and governance. It was agreed to meet biannually. The board is actively implementing and examining streamlined training (8 yr program- no gap years) and also formalizing the role that the ICO plays in the HST education process and governance issues

#### **Specialist Training Applications**

New guidelines are in place to return applications for recognition of non-EU applications to the specialist register with statute defined time limitations. To this end, a sub-committee was formed within the Manpower and Training Committee to update the curriculum and examine the documentation for same through the RCSI. I would like to thank Patricia Quinlan and Marc Guerin for their time and expertise who joined myself on this sub-committee. The document is soon to go live through the Medical Council and it is hoped that this will facilitate the required rapid turnover of external applications

#### **Ophthalmic Surgery Accreditation**

The program for ophthalmic surgery is to undergo accreditation in 2015 (December) and much work has been progressed by the Manpower and Training Committee to facilitate the required documentation to enable a successful application for same. The ophthalmic surgical training journey will come under scrutiny and RSCI are providing much needed assistance in preparation of this inspection process. I will be contacting all educational supervisors and know I can be assured of their support over the next few months to help with this process.

The new training program ophthalmic surgery of 8 years duration (mentioned in the Dean's report) is commencing in July 2015. From 2018-2020 there will be a dual entry process for trainees on the new programme and those who commenced their 2015. training before Successful commencing BSTs should have the opportunity to progress through eight years, but there will be a competitive progression process at the end of core surgical training. The application is currently been revised with RSCI and active contact has been maintained and will continue to be with all trainees to minimize anxiety and concerns during this process.

#### SCIENTIFIC COMMITTEE

#### Jeremy O Connor, Chairman

Committee Members; Denise Curtin, Marie Hickey-Dwyer, Fiona Kearns, Eugene Ng

Last year's annual conference was held in the Strand Hotel Limerick May 14<sup>th</sup> to 16th. Last year's meeting covered a range of topics including ocular infections, uveitis and new technologies.

#### **ICO/Novartis Research Bursary**

Dr Maedbh Rhatigan was the winner of the Bursary for her research project "Negative Regulators of Inflammation and Age Related Macular Degeneration in an Irish Population". Congratulations to Maedbh as she continues her work.

#### **ICO Medals**

Deborah Wallace was the winner of the Barbara Knox medal at the 2014 Conference for her paper on "A Molecular Analysis of Human Lamina Cribrosa and Trabecular Meshwork Cell Behaviours as Determined by the Surrounding Extracellular Matrix" The winner of the Sir William Wilde Medal was Dr Louise Hendricks for her poster on Ocriplasmin in the Treatment of Vitreomacular Traction and Macular Holes.

#### **Montgomery Lecture**

The 2014 Montgomery Lecture was delivered by Professor David Wong. The event which took place in the RCSI on December 7<sup>th</sup> was very well attended. Professor Wong who is Chair in Ophthalmology at the University of Hong Kong, gave a lecture entitled 'Physics in Everyday Ophthalmology and Vitreoretinal Surgery'.

#### **Mooney Lecture**

The 2014 Mooney lecture was given by Prof Stephen Foster from the Massachusetts Eye Research and Surgery Institution on 'MERSI Guidelines for a Preferred Practice Pattern for the Care of Patients with Recurrent or Steroid-Dependent Uveitis'.

This year we welcome Prof Simon Harding from Liverpool.

#### MEDICAL OPHTHALMOLOGISTS COMMITTEE

#### Alison Blake, Chairman

Committee Members: Paddy Condon, Michele Fenton, Iain Harrison, Fiona Kearns, Catherine McCrann, Margaret Morgan, Susan Mullaney, Margaret Pierse, Grace O' Malley, John Smith, John Traynor and Garry Treacy

The committee had three meetings during the year which were well attended.

The committee met on four occasions during the year with good attendance.

#### **Primary Eye Care Service Review**

The year has been a busy one with focus on Ophthalmology. In the latter half of 2014 the HSE has initiated a Primary Care Eve Services Review which is ongoing and is due to report this summer. The ICO hopes that the recommendations forthcoming from the review will support the eye card and model of care programme developed by the Clinical Lead for Ophthalmology and will lead to an improvement in the resources available to, and attractiveness of community posts. This will in turn have a positive impact on waiting times and

access to medical and optical care in the community.

#### Metrics

The development of metrics Community Ophthalmology by the HSE has started this year and is an important aspect of population care as it will inform the decision making process with regard to manpower and resources needed to care for patients in the community. The data collection requires IT support which should follow shortly. The project is an opportunity to demonstrate the work done community Ophthalmology clinics and to accurately inform decisions on the service

#### Medical Ophthalmology Curriculum

Delaney, Yvonne Dean of Postgraduate Education has worked to develop the medical ophthalmology training programme and has been well supported by the Medical Ophthalmologists committee and the wider group of medical Ophthalmologists. Thank you to all who contributed to the development of the new curriculum.

#### **PUBLIC AFFAIRS COMMITTEE**

#### Mark Cahill, Chairman

Committee members; Alison Blake, Patricia Logan, Garry Treacy, Kathryn McCreery and Darragh O Doherty.

#### Ongoing Advocacy and Public Awareness Work

The Committee is continuing to actively advocate on behalf of the specialty and patients and to raise public awareness on the work of eye doctors. Ongoing contact both direct and indirect, is being maintained with the Department of Health & Children.

Ciara Keenan is continuing to work for the College developing public awareness and to capitalising on opportunities for the College in various health awareness campaigns. The College held a health policy on Direct to Patient Advertising on September 24th. The meeting was held in the RCSI and included contributions from specialty of dermatology and plastics. Goodman CEO Frank οf Advertising Standards Authority of Ireland presented did as representatives of the Medical Council and Law Society. Stephen McMahon of the Irish Patients Association participated as did health journalist Catherine Reilly. The discussions informed the Refractive Guidelines subsequently published bγ the College.

#### **DEAN OF POST GRADUATE EDUCATION AND TRAINING**

#### Yvonne Delaney, Dean

Changes are being introduced to the National Training Program (NTP) for Ophthalmic Surgery in July 2015. There are multiple reasons from within the specialty to implement these changes but there are also external drivers from both the HSE and Medical Council to introduce certain design changes to the existing NTP, with the aim of eliminating the gap years and shortening the total training time, whilst retaining competitive entry into HST.

The Medical Council requires that national training programs remain in line with international best practice and incorporation of competencebased training into our NTP essential for continuing accreditation by the Medical Council. Competencebased training also brings with it a transparency and clarity to the training pathway which is key to attracting and retaining high-quality trainees. The latter is a priority for the HSE. They are eager to eliminate unnecessary 'gap' years and rationalise training programs nationally so as to maximise return on investment. improve graduate retention and more effectively align training programs to future manpower demand and patient need.

In terms of length of training, our existing NTP is clearly an outlier, with gap years extending the training journey from a nominal 8 to 10-12 years. Such a prolonged training journey, particularly in an environment where a third of all medical graduates are now graduate entry, has been

cited by trainees as a significant issue in their willingness to stay and train in Ireland.

The gap years are overtly dedicated to the pursuit of research, publications, MDs and surgical numbers. All of these are important but may be better purposefully embedded into a curricular structure rather than pursued individually for the sake of competition.

The new program will ring-fence a number of HST posts for the academic arena but design the main competition to enter HST around surgical and clinical skills that can be acquired in BST.

#### Challenges ahead

With the new program will come additional responsibilities. The key feature of the new training pathway is that career progression and entry into HST is linked to trainee performance during the basic common core years of training. Therefore it has never been more important to ensure equity of access to training opportunities across all training units nationally. To do so in the current climate of severe fiscal restrictions with theatre and other resource limitations, will be challenging.

During 2018 to 2020/21 a dual- intake process will facilitate trainees entering HST via both the current and new system. Adjustments will be made to the HST numbers in order to accommodate the dual-intake program

and to ensure fairness to both the 'current' as well as the 'new' trainees. Many challenges lie ahead as we engage with the new Program in July. Despite some uncertainties the ophthalmic community — trainers, trainees and the College - will work together to ensure the continued delivery of high-quality ophthalmic training in the College and at all training sites nationally.

#### **ETHICS COMMITTEE**

#### Paddy Condon, Chairman

Committee members; Louis Collum, Patricia Quinlan, Eamon O Connell and Patricia McGettrick

The Ethics Committee has been very actively involved in the development and drafting of the College's 'Guide to Refractive Surgery in Ireland' which has now been published and circulated to all members. The guide is also publically available on the College website and was the focus of a publicity campaign earlier this year. The Committee hopes that the document will be a very useful guide to surgeons and patients.

Patricia McGettrick is running a workshop during this year's annual conference on the professional and ethical aspects of the practice and the Committee is pleased to see this important aspect of practice incorporated into the scientific and educational programme.

#### OBITUARY Professor Peter Fustace

Professor Peter Eustace was a Consultant Ophthalmic Surgeon with a special interest in Neuro-ophthalmology.

He studied Medicine in University College Galway where he met his beloved wife Margaret. His post graduate training was undertaken in Birmingham in general practice initially and subsequently in Ophthalmology. He was appointed to the Mater hospital and Richmond Hospitals Dublin in 1975. His energy was boundless and his enthusiasm was infectious He had great interest in-patient care. He was readily available to colleagues and trainees in particular he enjoyed teaching and mentoring the trainees. He took a keen interest in their examinations and surgical training. He developed many research projects and encouraged the trainees to present at national and international meetings.

It is fitting that he was appointed as Professor of Ophthalmology to University College Dublin and the Mater Hospital Dublin in 1982. He developed the Mater Eye Department with a number of Consultant appointments each with a sub-speciality interest. He forged strong links with Temple Street and the Beaumont Hospitals. He is co-author of Neuro-ophthalmology which was published in 1998.

He established the first EBO diploma examination in Milan in 1995 to enable recognition of European training as he strongly supported the European Board of Ophthalmology and the harmonisation of training in Europe. The Peter Eustace medal for excellence in education is awarded annually since 2011during the EBO exam in Paris.

He was a co-founder of the British Isles neuro-ophthalmology club with Bruce Noble (BINOC) in1984. All attendees were required to present a paper. Peter organised the third meeting in Ireland which was the first of several meetings held in this country. Peter was always at the centre of the discussions and is remembered for his gentle wit and great scholarship. BINOC meets annually and is attended by distinguished neuro-ophthalmologists from the US and Europe and has brought great fellowship and support to all attendees. He was President of the Irish College of Ophthalmology in 1993-95.

He was a champion golfer and a member of Dun Laoghaire golf club all his life, and he enjoyed sailing. A keen supporter of the arts when he retired he spent many months in Connemara painting and writing poetry. He is sadly missed by his wife Margaret their children Ashling, Stephen, Nick, Joanne and Hilary his many grandchildren, friends and colleagues. All who knew him benefited from his intelligence and his commitment; a leading figure in Ophthalmology he enriched countless lives with his advice and support. His dedication to patient care was exemplary.

#### Irish College of Ophthalmologists Annual Conference 2015 Knockranny House, Westport May 13th – 15<sup>th</sup> Programme

Tuesday 12th May Set up from 3pm on Tuesday

#### Wednesday 13th May

8.55am Welcome

Miss Marie Hickey Dwyer

President, Irish College of Ophthalmologists

9.00am Paper Session

Chair: Prof Conor Murphy

Audit of Outcome of Baerveldt Tube Implantation in the Management of Complex Glaucoma Evelyn O Neill

Audit of Outcomes Following Bleb Reconstruction Surgery in a Glaucoma Service Over a 6 Year Period Sarah Moran

Establishing Fitness to Drive in a Glaucoma Population – a Dilemma Olya Pokrovskaya,

Overnight Inpatient Intraocular Pressure Phasing in the Management of Open Angle Glaucoma: Our Experience at the Royal Victoria Eye and Ear Hospital Dublin

Najiha Rahman

#### Questions

9.30am Rates of Refractive Errors Among Medical Students in National University of Ireland, Galway: a 5-Year Follow Up Study Helen Fogarty

Intracorneal Ring Segments in the Management of Corneal Ectasia- a 10 year Review of our Experience Emily Hughes

Macular Integrity Assessment in Femto-LASIK Lisa McAnena

Four Year Visual and Functional Outcomes of Femtosecond Laser Intrastromal Procedure for Presbyopia

Aine Ní Mhéalóid

#### Questions

10.00am Fungal Keratitis in the Republic of Ireland: A Multicenter Nationwide Review of all Cases of Fungal Keratitis over a 5 Year Period. Stephen Farrell

Outcome of Cataract Surgery in Post-corneal Refractive Surgery Patients; Study from the European Registry of Quality Outcomes for Cataract and Refractive Surgery Sonia Manning

Audit of Cataract Surgery Results After Toric Intraocular Lens Implantation Paul O'Brien

The ETDRS Visual Acuity Chart Compared to the Tumbling-E and Landolt-C Max Treacy

Questions

#### 10.30am Coffee

#### 11.00am Keynote Address

HSE Review of Primary Eye Care Services

Mr Brian Murphy

Head of Planning, Performance & Programme Management, Primary Care, HSE

#### 12.00pm Poster Session

Chair: Dr Denise Curtin

Neuro-Ophthalmic Manifestations in Behcet's Disease – A Case Report Georgios Vartsakis

Clinical Review of Referrals for Investigation of Suspected Swollen Optic Discs

Stephen Stewart

Rare Case of Fibrous Dysplasia of Orbit Muhammad Yasir Arfat Objective Assessment of Symptomatic Vitreous Floaters Using Optical Coherence Tomography
Kevin Kennelly

Visual and Refractive Outcomes in Patients With High Astigmatism Following Cataract Surgery with Toric Lens Implantation
Lina Kobayter

Limbal Relaxing Incisions to Improve Astigmatism Following Cataract Surgery Stephen Farrell

Risk Factors in Post Cataract Surgery Endophthalmitis Donal McCullagh

Practice Trends in the Routine Administration of Intravitreal Anti-VEGF Injections
Helen Fogarty

Comparison of the Southeast Intravitreal Injection Protocol for ARMD to International Guidelines
Kirk Stephenson

An Audit of the Diabetic Retinopathy Treatment Programme in University Hospital Galway (UHG). Christine Goodchild

Southeastern ROP Screening Audit –Initial Survey and Recommendations Kirk Stephenson

Update on Creating an Inherited Retinal Diseases Registry Recruitment at the Mater Misericordiae University Hospital Tahira Saad

Microbial Keratitis: An Audit of Sample Collection and Microbiological Findings Gabriella Guevara

#### 1.00pm Lunch

#### 2.00pm Ocular Complications of Acquired Brain Injury

Chair: Mr Martin O Connor

Introduction & Background
Neurological Visual Consequences of Acquired Brain Injury
Ms Carmel Noonan
Aintree University Hospital NHS Foundation Trust

Interventions for Ocular Motility Consequences of Acquired Brain Injury Mr Ian Marsh Aintree University Hospital NHS Foundation Trust

Ocular Motility Consequences of Acquired Brain Injury Dr Fiona Rowe Reader in Orthoptics and Health Services Research NIHR Fellow, University of Liverpool

#### 3.30pm Coffee

## 4.00pm Discussion Forum on Eye Care Practice & Policy Moderators Mr Mark Cahill & Ms Siobhan Kelly

#### Thursday 14th May

#### 8.30am Paper Session

Chair: Dr Alison Blake

A Typical and Atypical Case of Streptococcal Endogenous Endophthalmitis Helen Fogarty

Half- Fluence Verterporforin PDT to Treat Chronic Serous Chorioretinopathy (CSC): An Audit in University Hospital Galway (UHG)
Christine Goodchild

Pigment Under Pressure: A Case Series of Iris Melanomas Anne-Marie Mongan

#### Questions

9.00am Long Term Visual and Anatomic Results Following Vitrectomy for Macular Hole (MH) and Epiretinal Membrane (ERM). Sinead Connolly

Complex Retinal Detachment Repair: Outcomes of Silicone Oil Tamponade In Cork University Hospital 2010 – 2014
Terence McSwinev

Clinical Outcomes of 25G Pars Plana Vitrectomy for Macular Hole Repair: A 2-year Audit Hadia Paryani

#### Questions

#### 9.30am Medical Retina Symposium

Chair: Miss Marie Hickey Dwyer

Genotyping in Inherited Retinal Degenerations: Does it make a difference?

Dr Giuliana Silvestri

Royal Victoria Hospital and Queen's University Belfast

"What happens if you have a Retinal Vein Occlusion in Belfast"
Ms Deborah Chan
Mr Michael Marshall
Queen's University, Belfast

#### 10.50am Coffee

#### 11.20am Ocular Trauma, Changing Trends and Outcomes

Prof Carrie MacEwan
President, Royal College of Ophthalmologists, London

#### 11.45am Paper Session

Chair: Mr James Morgan

Discovery of a Homozygous Recessive RPE65 Mutation in an Irish Choroideraemia Pedigree Emma Duignan

Detection of Serum Biomarkers in Age Related Macular Degeneration H Flshelmani

Dendritic Cells in Non-Infectious Anterior Uveitis Michael O'Rourke

Pellino3 as a Novel Target for the Treatment of Primary Sjogren's Syndrome Related Dry Eyes.

Qistina Pilson

#### Questions

#### 12.15pm Mooney Lecture

New Directions in the Management of Diabetic Retinopathy Prof Simon Harding

Chair Professor of Clinical Ophthalmology, Department of Eye and Vision Science, University of Liverpool and Honorary Consultant Ophthalmic Surgeon, St. Paul's Eye Unit, Royal Liverpool University Hospital

#### 1.00pm Lunch

#### 2.00pm Ethics in Clinical Practice Workshop

Chair; Miss Patricia McGettrick

Informed Consent - Fact or Fiction?

Dr Diarmuid Hegarty

GP & Lecturer RCSI MSc programme in Medical Ethics and Law

Medical Ethics Made Easy

Miss Patricia McGettrick

Ethics Committee, Irish College of Ophthalmologists

Medico-legal Aspects of Consent in Medical Practice

Mr Asim Sheikh

Barrister

#### Friday 15th May

#### 9.00am Irish College of Ophthalmologists Annual General Meeting

#### 10.00am Expecting Problems As We Explore Possibilities

Mr Mark Pollock

Collaboration Catalyst & Explorer at Mark Pollock Trust

#### 10.45am Coffee

#### 11.15pm ICO/Novartis Bursary Update

Negative Regulators of Inflammation and Age Related Macular Degeneration in an Irish Population

Dr Maedbh Rhatigan

Researcher, Royal Victoria Eye & Ear Hospital Research Foundation

#### 11.30am SOE Lecture - European Society of Ophthalmology

Diabetic retinopathy and Maculopathy – Seeing beyond Anti-VEGF Therapy

Mr Paul O Connell

Mater Misericordiae Hospital Dublin

#### 12.00pm 'Update on Oculoplastic Management Across the Ages'

Chair: Ms Kate Coleman

Aetiology and Management of Congenital Ocular and Eyelid Abnormalities

Prof Richard Collin

Moorfields Eye Hospital, London

Grand Rounds on Oculoplastic Dilemmas

# Book of Abstracts

# Paper Session Wednesday 13<sup>th</sup> May, 2015 9am

Overnight Inpatient Intraocular Pressure Phasing in the Management of Open Angle Glaucoma: Our Experience at the Royal Victoria Eye and Ear Hospital, Dublin

Rahman N, Siah WF, Doyle A. Ophthalmology Department, Royal Victoria Eye & Ear Hospital, Dublin 2.

**Objectives:** At the Royal Victoria Eye and Ear Hospital (RVEEH), Dublin, the protocol for intraocular pressure (IOP) phasing in a glaucoma patient consists of an overnight inpatient stay for serial IOP measurements using Goldmann applanation tonometry. IOP readings were recorded between 4pm and 6pm (on admission), between 10pm and 11pm (before bedtime), between 6.30am and 7.30am (on waking) and between 9am and 11am (on discharge). The purpose of this study is to evaluate the efficacy of our IOP phasing protocol on clinical decision-making.

**Methods:** A retrospective review of the clinical notes of open angle glaucoma (OAG) patients that were admitted into the RVEEH between 2009 and 2014 was carried out. The eye that was of concern for glaucoma progression in the absence of raised IOP or where there was a dilemma of glaucoma treatment was considered the study eye. IOP readings obtained in the clinic (average of 2 -3 measurements) were compared to those taken at phasing. Any change in clinical management following IOP phasing was documented.

Results: A total of 37 eyes from 37 patients (mean age ± SD, 70 ± 10 years; range 42 - 89) were identified. The majority of the patients had a diagnosis of primary open angle glaucoma (POAG) (n = 23, 62%) while the remaining had normal tension glaucoma (NTG) (n = 14, 38%). The most common reason for IOP phasing was the detection of glaucoma progression in clinic (78%). IOP recorded during clinic (median = 14 mmHg, range 9 - 21) was compared to IOP recorded on admission between 4pm and 6pm (median = 15, range 12 - 26), IOP recorded before bedtime between 10pm and 11pm (median = 16, range = 10 - 26), IOP recorded on waking up between 6.30am and 7.30am (median = 15, range 10 - 30) and IOP recorded on discharge between 9am and 11am (median 12, range 8 -20) respectively. A Wilcoxon Signed-Ranks Test indicated that phasing IOP ranks before bedtime and on waking up were statistically significantly higher than clinic IOP ranks (z = -2.72, p = 0.006 and z = -2.79, p = 0.004 respectively) while a statistically lower IOP was found on discharge (z = -2.22, p = 0.025). Following IOP phasing, a change in the glaucoma management was implemented in 62% (POAG, n = 15; NTG, n = 8) of the patients (drainage surgery, n = 15) 8; laser treatment, n = 4; topical IOP-lowering agent, n = 11).

**Conclusions**: IOP phasing is an effective way to identify any diurnal IOP fluctuation that may have been missed outside the ordinary clinic hours. We showed that IOP was statistically significantly higher before bedtime and on waking up compared to that measured in the clinic. Our IOP phasing protocol that involves an overnight inpatient

stay proves to be valuable in aiding clinical decision-making in the management of  $\mathsf{OAG}.$ 

## Audit of Outcome of Baerveldt Tube implantation in the Management of Complex Glaucoma

O'Neill E, Doyle A. Royal Victoria Eye and Ear Hospital

**Objectives:** To audit the outcome of patients undergoing Baerveldt Tube implantation for the management of complex or secondary glaucoma on a background of previous intraocular surgery

**Methods:** Retrospective cases series analysis

**Results:** 41 eyes of 39 patients had Baerveldt tube surgery between 2008 and 2014. There were 34 adult eyes, mean age 49 (range 18-82) and 8 children, mean 11 (range 1-16). Coexisting eye conditions included uveitis (9), ICE syndrome (3), Rieger's syndrome (3), Congenital glaucoma (2), Sturge Weber syndrome (2), previous complicated cataract surgery (4), silicone oil or retinal detachment (3), 2 previous bleb reconstructions and previous trabeculectomy or tube in 22 patients. The mean number of previous procedures was 2.2 (0-6) Mean preoperative IOP was 31.8±8mmHg on a mean of 3.64 drops with 15 patients on Diamox. Mean postoperative pressure was 13.2±3.9mmHg on a mean of 0.9 drops.

Complications occurred in 20 eyes. These included temporary low IOP with choroidal effusion in 3 eyes and transient diplopia in 2 eyes. Persistent hypotony requiring tube removal in 2, tube erosion in 4 eyes, 2 of which necessitated tube removal and 2 had scleral patch graft, tube obstruction in 2 and dellen in 1. 16 patients required 1-5 (mean 2.25) additional procedures to correct complications, 3 of which were due to exacerbation of coexisting uveitis.

**Conclusions:** Baerveldt tube is a successful method of IOP control in eyes with complex glaucoma, coexisting ocular pathology and previous surgery, although there is a high risk of complication often requiring additional procedures.

#### Establishing Fitness to Drive in a Glaucoma Population – a Dilemma

Pokrovskaya O, O'Brien C. Mater Misericordiae University Hospital, Dublin

**Objectives:** Establishing fitness to drive standards in a glaucoma population is a difficult task. The Irish Road Safety Authority (RSA) recommends the binocular Estermann visual field test as the benchmark for visual field assessment in relation to driving.

The purpose of the present audit was firstly to establish the number of patients with glaucoma in our clinic who are still driving. Secondly, to determine how many of these have had an Estermann visual fields test as recommended by the RSA. Finally, to analyse either the available Estermann field or a Humphrey's monocular 24-2 field from a point of view of fitness to drive.

**Methods:** The work was carried out anonymously. In the event of no Estermann field having been done for a patient, we applied the now well-recognised Intergrated Visual Field criteria described by Crabb et al in 1998, to simulate binocular visual field status from a monocular field.[1]

**Results**: Data was collected on 55 patients with glaucoma. Of these, 27 reported that they drive regularly. Only one patient had an Estermann visual field. 7 did not fit the RSA standards.

**Conclusions:** The Integrated Visual Field (IVF) criteria is a useful tool for estimating fitness to drive in the absence of a binocular field test. However the EVF is the agreed standard and patients who have abnormal visual fields should have an EVF. By educating doctors about the indications for an EVF and its interpretation, we hope to increase the appropriate use of this test.

Crabb, D.P., et al., Simulating binocular visual field status in glaucoma. Br J Ophthalmol, 1998. 82(11): p. 1236-41.

## Audit of Outcomes Following Bleb Reconstruction Surgery in a Glaucoma Service Over a 6 Year Period

Moran S, Doyle A. Royal Victoria Eye and Ear Hospital Dublin

**Objectives**: To evaluate the following:

- 1. Success of bleb reconstruction in treating hypotony/bleb leak.
- Number of patients requiring further procedures following reconstruction.
- 3. Number of patients requiring drops to control intraocular pressure (IOP) following bleb reconstruction

**Methods:** All patients undergoing bleb reconstruction surgeries since 2009 were identified. A retrospective review of patients' files was performed. Main outcome measures were correction of leak, IOP measurements before reconstruction, and after reconstruction at Day 1, Week 1, 1 Month, 6 Months, 1 year, and yearly intervals thereafter, need for further procedures following reconstruction, and number of patients requiring drops to control IOP.

**Results:**17 eyes of 15 patients undergoing bleb reconstruction were identified Average age was 68 years old. Mean IOP measurement pre op IOP was 10mmHG (range 4-19). Mean time from original surgery to reconstruction was 25 months. 16 of 17 eyes (94%) had no leak in the initial post-operative period. Mean IOP on Day 1: 17mmHG (5-40), Week 1: 13mmHG(5-26), 1 month 15mmHg (5-32), 6 months: 10mmHg (9-13) 1 year: 10mmHG (8-18), and 2 years: 15mmHG (12-20).

7 eyes (41% of eyes) required a further procedure to control IOP, 1 eye of which required further filtration surgery, while the remainder required minor procedures . 8 eyes (47%) were still requiring drops for IOP control, 4 eyes of which required 2 or more agents.

**Conclusions:** Bleb reconstruction provides successful resolution of leaks and hypotony, and can maintain glaucoma control with or without medication, although a significant number of patients may require further procedures.

# Four Year Visual and Functional Outcomes of Femtosecond Laser Intrastromal Procedure for Presbyopia

Ní Mhéalóid Á, O'Keefe M. Mater Private Hospital Dublin

**Objectives:** To investigate the four year visual and functional outcomes of the Intracor Femtosecond intrastromal laser procedure to treat presbyopia.

**Methods**: Forty one eyes of forty one patients enrolled in this prospective study. Detailed pre-operative and post-operative assessments at day 1, week 1, week 6, 6 months, 1 year, 2 years and 4 years were carried out. The Intracor procedure was carried out on the non-dominant eye. Data recorded included preoperative unaided near and distance visual acuity, postoperative near and distance visual acuity, pre- and post-operative refraction, stereopsis, endothelial cell count, pachymetry, wavefront aberrations, corneal topography, patient satisfaction and spectacle independence.

**Results:** Preoperatively, the mean unaided near visual acuity was N14 ranging from N8 to N36, with a mean required near addition of +1.91 dioptres. At four years post-operatively, the mean unaided near visual acuity was N5 with a mean refraction of 0.195 dioptres spherical equivalence. 92.6% reported spectacle independence with 36.5% reading unaided full-time. One patient who had undergone prior hyperopic laser-assisted in situ keratomileusis (LASIK) treatment developed progressive corneal steepening with increasing myopia, which, was subsequently improved with the insertion of a phakic intraocular lens.

Conclusions:

The femtosecond laser based INTRACOR treatment for presbyopia shows excellent medium-long term results in patients who have not undergone prior corneal surgery. Patient satisfaction remains high at four years.

**Conclusions:** The femtosecond laser based INTRACOR treatment for presbyopia shows excellent medium-long term results in patients who have not undergone prior corneal surgery. Patient satisfaction remains high at four years.

#### Macular Integrity Assessment in Femto-LASIK

Lisa McAnena, Michael O'Keefe Mater Private Hospital Dublin

**Objectives:** Use of the femtosecond laser for flap-creation in Laser-Assisted In-situ Keratomileusis (LASIK) causes a temporary rise in intra-ocular pressure (IOP) up to 240mmHg. We aim to evaluate and the effects of femto-LASIK on macular sensitivity and function using microperimetry

**Methods:**Twenty eyes treated with femto-LASIK (cases) and 20 eyes treated with LASEK (controls) underwent macular assessment using the MAIA (MAcular Integrity Assessment) microperimeter, pre-operatively, and at 30 minutes, 1-day and 1-week post-operatively

**Results:**Post-operatively, there was a reduction in macular sensitivity at 30 minutes in the LASIK group, and this returned to normal at 1-day and 1-week. This correlated with a change in mean visual acuity from 0.3 decimal at 30-minutes to 0.95 at 1-day, and 1.02 at 1-week (p< 0.05) and with corneal edema, which was significant at 30-minutes and resolved at 1-day and 1-week. There was no significant change in pre-operative and post-operative macular sensitivity in the LASEK group

**Conclusions:** Macular sensitivity appears to be reduced in the early period post-femto-LASIK and returns to normal after one day. The early post-operative reduction in sensitivity is most likely due to post-operative flap edema

# Intracorneal Ring Segments in the Management of Corneal Ectasia - a 10 Year Review of Our Experience

Hughes E, Condon P, Daya S.

Dept of Ophthalmology, Mater Misericordiae University Hospital Dublin, Waterford Eye Specialists, Centre for Sight, East Grimstead

**Objectives:** The management of corneal ectasia can be challenging in the setting of contact lens intolerance and progressive disease. Intracorneal ring segment (ICR) insertion in an option in selected cases, alone or as an adjunct to other treatments, with good outcomes. Here we describe the ten year experience of outcomes of this surgery in one practice.

**Methods:** Retrospective review of all patients who underwent ICR insertion between 2002 and 2012 within one practice. Parameters recorded included diagnosis and previous treatment, indication for surgery, pre-operative and post-operative unaided vision, best corrected vision, refractive error, and corneal topography (mean k values), complications and subsequent procedures.

Results: Between 2002 and 2012, 23 eyes of 21 patients underwent ICR insertion. 22 patients had an underlying diagnosis of keratoconus, 1 had post-LASIK ectasia. ICR insertion was performed in the UK, and all follow-up by the original referring ophthalmologist in Ireland. Surgical technique is demonstrated using Intralase Femtosecond assisted ICR insertion. 10 eyes underwent previous riboflavin corneal cross linking (CXL) treatment. 7 eyes required further surgery over the course of the review- 3 had subsequent CXL, and 4 had deep anterior lamellar keratoplasty. 1 eye required removal of the ICR for extrusion. Topography and refractive outcomes are also discussed.

**Conclusions:** ICR insertion can be an effective surgical treatment for corneal ectasia. 70% of patients who underwent ICR insertion did not require further operative intervention over the course of their follow-up to date (mean 6.3 years +/- 3.5 years). Insertion is not contraindicated by previous CXL, nor does it preclude subsequent surgical intervention.

# Rates of Refractive Errors Among Medical Students in National University of Ireland, Galway: a 5-Year Follow Up Study

Fogarty H, O Donnell K, Harney F.

Department of Ophthalmology and National University of Ireland, University College Hospital Galway

**Objectives:** To identify the rates of refractive errors among medical students. An initial survey was carried out among first year medical students in NUI Galway in 2010 with a follow-up study of the same cohort during their final medical year in 2015. This included data on the rates of refractive errors and amblyopia, the usage of corrective lenses as well as attitudes towards laser refractive surgery.

**Methods:** Surveys were issued to medical students during their first undergraduate year and later to the same group in their final year. The results were collected and data analyzed.

**Results:** In 2015 there were a total of 107 respondents, of which 71 also responded in 2010. In 2015, 70% of students report a refractive error for which they use corrective lenses. Myopia was the most common condition, in 95%. Of those that use refractive lenses, 20% had commenced use since 2010 and 62% of students reported a requirement for increased prescription strength since commencing medical school. Only one student had undergone laser refractive surgery and 44% of students indicated a negative attitude towards potentially undergoing laser refractive surgery in the future.

**Conclusions:** significant proportion of the student cohort reported refractive errors. Attitudes towards the potential of laser refractive surgery were mixed. A more in-depth comparison with data gathered from other University faculties, potentially in our own institution as well as other international populations would be of interest.

# Fungal Keratitis in the Republic of Ireland: A multicenter Nationwide Review of all Cases of Fungal Keratitis over a 5 year period

Farrell S, Mc Elnea E , Moran S, Murphy C. Royal Victoria Eye and Ear Hospital

**Objectives:** Fungal Keratitis is an ophthalmic disease which, while relatively common in the tropics, is uncommon in temperate climates such as Ireland. Fungal Keratitis is a severe sight and eye-threatening condition requiring corneal grafts in 21-46% of cases and resulting in loss of the eye in approximately 5% of cases in temperate climates. There is no credible estimate of the actual incidence of Fungal Keratitis in temperate climates. The 4 series that have been published in the UK, US and Australia are all small retrospective audits of 24-67 eyes performed at single centres. We aimed to establish the prevalence, risk factors, causative organisms and clinical outcomes of fungal keratitis in temperate climates.

**Methods:** All cases of culture positive or microscopy positive fungal keratitis diagnosed in the Royal Victoria Eye and Ear Hospital, Mater Hospital, University Hospital Waterford, Cork University Hospital, University Hospital Limerick, University Hospital Galway and Sligo Regional Hospital occurring since January 2009 were reviewed. Risk Factors including Trauma, Travel to the Tropics, Pre-existing eye conditions, Contact Lens wear, Topical Steroid Use were recorded. The responsible organism and sensitivities to antifungal medications were identified. The time from onset of symptoms to diagnosis was recorded. The clinical treatment including necessity for surgery was recorded and the visual outcome documented.

**Results**: In this presentation we report the findings of this nationwide study. This is the only multicentre review of Fungal Keratitis in a temperate climate. Fungal Keratitis is an uncommon disease with an estimated annual incidence of approximately 11 cases per year in the Republic of Ireland. Aspergillus, Candida and Fusarium Species are the most common organisms. Contact Lens wear and pre-existing corneal disease are the most common risk factors. Unlike in the tropics, trauma is not a common cause of Fungal Keratitis in Ireland.

**Conclusions:** This study provides valuable information in terms of prevalence, risk factors, organisms, sensitivities to antifungal drugs and outcomes in Fungal Keratitis.

#### Audit of Cataract Surgery Results after Toric Intraocular Lens Implantation

O'Brien, P. Blackrock Clinic, Dublin

**Objectives:** The main objective of this retrospective review of all toric lens implants was to highlight the beneficial effect of toric IOLs in modern day cataract surgery.

**Methods:** Pre and post-operative refractive and corneal astigmatism were measured in 35 consecutive patients undergoing uncomplicated cataract surgery and toric IOL implantation in a private clinic between 2012-2014.

**Results:** Results from 35 operations in 26 patients were included for analysis. The mean refractive astigmatism (glasses cylinder) was significantly reduced from 2.74D (range 1.5-8.25D) pre-operatively to 0.71D (range 0-2.75D) post-operatively. The mean corneal astigmatism was unchanged from 2.77D (range 1.25-6D) pre-operatively to 2.74D (range 1.25-6.25D) post-operatively.

The mean spherical equivalent refractive error decreased from 3.9D to 0.38D following cataract surgery. The mean pre-operative BCVA of just less than 6/12 improved to just less than 6/6 (BCVA) and 6/7.5 (UCVA) post-operatively.

**Conclusions:** Toric IOLs are an invaluable tool in dealing with corneal astigmatism at the time of cataract surgery.

Outcome of Cataract Surgery in Post-Corneal Refractive Surgery Patients; Study from the European Registry of Quality Outcomes for Cataract and Refractive Surgery

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Department of Ophthalmology, Mater Misericordiae University Hospital, Dublin,
Department of Ophthalmology, St. Vincent's Hospital Group, Dublin, Department of
Ophthalmology, Vumc, Amsterdam, Oxford Eye Hospital, Oxford, Department of
Ophthalmology, Sahlgren's University Hospital, Molndal, Sweden, Department of
Clinical Sciences, Ophthalmology, Faculty of Medicine, Lund University, Lund, Sweden

**Objectives:** To analyze the visual outcome after cataract surgery in patients with previous corneal refractive surgery, from 19 European countries.

**Methods:** Cases of cataract extraction with previous corneal refractive surgery (refractive cases) were identified, from all cataract extractions reported to the European Registry of Quality Outcomes for Cataract and Refractive Surgery database over 5 years. Preoperative and postoperative measurements and trends over time were analyzed.

**Results:** Twelve hundred and twenty-nine of 807,220 cataract extractions (0.15%) were refractive cases. There was significant increase, over time, in the number of refractive cases (p<0.001). Refractive cases were younger than non-refractive cases (62.9 years versus 74.0 years; p<0.001), but had similar mean preoperative and postoperative corrected-distance visual acuity (CDVA) (preoperative logMAR 0.44[6/16] for both [p=0.286]; postoperative logMAR 0.06[6/7] for both [p=0.245]). Postoperative CDVA was worse than preoperative CDVA in 35 (4%) refractive and 8,999 (1.5%) non-refractive cases (p<0.001). Seventy-four of 873[8.5%] refractive, versus 16,566 /584,496[2.8%] non-refractive patients, undergoing cataract surgery, had preoperative CDVA of logMAR 0.0[6/6] or better (p<0.001). Nineteen (54.3%) of 35 refractive cases that ended-up with worse postoperative CDVA, had preoperative CDVA of logMAR 0.0(6/6) or better.

**Conclusions:** Cataract surgery has been reported with increasing frequency, in post-corneal refractive surgery patients, since 2008. These patients had similar preoperative CDVA to patients without prior corneal refractive surgery, but were younger and were at a higher risk of worse postoperative CDVA, especially if they had preoperative CDVA of logMAR 0.0(6/6) or better.

#### The ETDRS Visual Acuity Chart Compared to the Tumbling-E and Landolt-C

Treacy M, Hurst T, Conway M, Duignan E, Dimitrov B, Brennan N, Cassidy L. Mater Mesicordae Universty Hospital, Royal Victoria Eye and Ear Hospital, Dublin, Department of Zoology, University of Oxford, Oxford, UK, Medical Optics, Dublin, Ireland, Faculty of Medicine, University of Southampton, Southampton, UK, Moorfields Eye Hospital, London, UK

**Objectives:** To determine whether the LogMAR versions of the Tumbling-E or Landolt-C vision charts are comparable to the gold-standard ETDRS chart.

**Methods:** Patients were recruited at a community ophthalmology practice in Dublin and both eyes were included unless the vision was too poor to read any ETDRS letters at one meter. Patients were refracted and vision was measured in accordance with Age Related Eye Disease Study manual of procedures. The charts were statistically compared using the generalised linear mixed model (GLIMMIX) method and data was graphically presented using Bland-Altman plots.

**Results:** A total of 112 patients were recruited with 221 eyes being included in the analysis. Using the GLIMMIX approach for each chart, the estimated mean VA measured with the ETDRS chart was 0.15 LogMAR (95% CI: 0.11-0.20), the Tumbling-E chart was 0.17 LogMAR (95% CI: 0.13-0.21) and the Landolt-C chart was 0.25 LogMAR (95% CI: 0.21-0.30). The adjusted 0.02 LogMAR difference between ETDRS and Tumbling-E charts was not statistically significant (p=0.116). However, the adjusted 0.10 LogMAR difference between ETDRS and Landolt-C charts was significant (p<0.0001). Institutional ethics committee approval was granted by Trinity College Dublin Research Ethics Committee.

**Conclusions:** Charts originally developed for the Early Treatment in Diabetic Retinopathy Study (ETDRS) and subsequently refined have become the gold-standard in ophthalmology research. The Landolt-C is internationally regarded as the reference optotype and the Tumbling E is commonly used in clinical practice. While the average difference in VA measured with the Tumbling-E and ETDRS charts is negligible, there is a one-line difference between the Landolt-C and ETDRS charts that may be clinically important. This matters because not all populations use the Roman alphabet, such as those native to eastern Europe, the Middle East, Indian sub-continent and Asia and also those using Latin languages who may be illiterate, particularly in the Developing World.

# Paper Session Thursday 14<sup>th</sup> May 9am

#### A Typical and Atypical Case of Streptococcal Endogenous Endophthalmitis

Fogarty H, Idrees Z, Fahy G.
Department of Ophthalmology, University College Hospital Galway.

**Objectives:** To present two very different cases of endogenous endophthalmitis due to streptoccal infection which presented to University College Hospital Galway in January 2015

**Methods:** Data obtained from retrospective analysis of patients charts

Case 1: A 78-year old gentleman was referred from a regional hospital with rapidly progressive proptosis of his left eye associated with pyrexia, confusion, decreased mobility and low back pain. CT thorax showed bi-basal pneumonia, CT Brain showed a sub-acute stroke and blood cultures revealed a pure growth of Group G Streptococcus. His visual acuity on presentation was PL in the left eye and 6/12 in the right eye with significant left chemosis, proptosis and restriction of extra-ocular movements. Despite appropriate antibiotic therapy, he continued to deteriorate and underwent left eye enucleation under local anaesthetic. Vitreous cultures also grew Group G Streptococcus. He was subsequently found to have an epidural abscess on MRI Spine and a large aortic root abscess on ECHO studies.

Case 2: A 22-year old male was referred from the college health service with a 1-day history of pain and deterioration of vision in his right eye. His background history is significant for Marfan's syndrome and bilateral anterior chamber intra-ocular lens. On examination vision was hand movements in the right eye and 6/7.5 in the left. He had severe corneal oedema, extensive fibrin in the AC, elevated intra-ocular pressures and poor fundal view with diffuse vitritis in the right eye. He underwent emergency right AC washout, vitrectomy, vitreous biopsy and intravitreal antibiotics. Vitreous culture grew Streptococcus Pneumoniae. Despite extensive investigations under Infectious Diseases, no source of infection was identified.

### Half- Fluence Verterporforin PDT to Treat Chronic Serous Chorioretinopathy (CSC): An Audit in University Hospital Galway (UHG)

Goodchild.C, Doyle.F, Kinsella.F.
Ophthalmology Department, University College Hospital Galway

**Objectives**: To determine the outcomes of patients who underwent half-fluence PDT treatment for chronic serous chrioretinopathy in UHG.

**Methods**: Patients with CSC underwent a visual acuity check, a dilated fundal examination, optical coherence tomography and fundus fluorescein angiography assessment, at baseline, 3 and 6 months follow-up. Patients were treated with half-fluence verterporforin. All data was collected and analysed.

**Results:** Eleven eyes of eleven patients were included in the study. The mean age of the patients was 57.5+/-8.5 years. The baseline mean BCVA was LogMAR 0.4+/-0.21, (range 0.1-0.8) and mean BCVA 3 months post-treatment was LogMAR 0.31+/-0.26 (range 0.1-1.7). Mean pre-PDT subretinal fluid thickness was 114+/-57 µm and mean post-PDT subretinal fluid thickness was 41+/-57 µm. Mean pre-PDT central macular thickness was 260+/-60µm and mean post-PDT central macular thickness was 190+/-54µm. Final visual acuity improved in seven cases, stablised in two, and worsened in 2 cases. There was one post-PDT CNVM. In all cases there was either resolution or improvement in subretinal fluid thickness.

**Conclusions:** Our findings, including the presence of post-PDT CNVM, are in keeping with normal results in the use of half-fluence PDT for treatment of active CSC.

#### Pigment Under Pressure: A Case Series of Iris Melanomas

AM Mongan, V O'Neill, A Doyle, S Kennedy, N Horgan.
Department of Ocular Oncology, Royal Victoria Eye and Ear Hospital

**Objectives:** To report the clinical features and outcomes of iris melanomas managed at a tertiary referral ocular oncology department

**Methods:** A retrospective, consecutive case series of patients with iris and iridociliary melanoma presenting to the ocular oncology service between January 2010 and December 2014.

**Results:** 17 patients (64% female, 36% male), median age 60 years (range, 31-84 years) with a presumed (n=15) and confirmed (n=2) diagnosis of iris and iridocilary melanoma, were included in the study. Median tumour diameter was 2.6 mm (range, 1.2-5.25mm). The iridocorneal angle was invaded by the tumour in 72% of cases, the ciliary body in 29% of cases, and the sclera in 12%. Raised intraocular pressure was present before treatment in 47% of cases, including three cases undergoing assessment for POAG under the care of an ophthalmologist. Two of these three patients had extrascleral extension and underwent enucleation. Molecular analysis revealed an aggressive genotype with monosomy of chromosome three and amplification of chromosome eight in both of these cases.

Plaque brachytherapy was the commonest treatment modality, performed in 88% of patients (median dose 90.12Gy). During a median follow-up of 34.5 months (range 3-48 months), none of the patients showed tumour progression, local recurrence, or metastasis. Cataract and glaucoma were the main complications developing after irradiation in 50% and 56%, respectively. Best corrected visual acuity of 6/9 or better was achieved in 85% of patients who underwent irradiation.

**Conclusions:** Ocular melanomas with IOP elevation are associated with aggressive disease, and, are more commonly treated with enucleation1. This report highlights that a high index of suspicion is necessary to diagnose ocular melanomas in patients with presumed POAG. Plaque radiotherapy appears to be the treatment of choice for the conservative treatment of iris melanomas with excellent tumour control, preservation of visual function and an acceptable rate of complications.

### Complex Retinal Detachment Repair: Outcomes of Silicone Oil Tamponade In Cork University Hospital 2010 – 2014

McSwiney T, Collins N, Cullinane A. Cork University Hospital

**Objectives:** Complex retinal detachment repair remains a challenging area in vitreoretinal surgery. The use of silicone oil (S.O.) can improve the prognosis of complex retinal detachment, however is associated with complications, hence removal of S.O. from the eye is generally recommended. We evaluated the outcomes of complex retinal detachment repair with S.O. tamponade, in terms of anatomic success, visual acuity and complications.

**Methods:** Retrospective review of all cases of silicone oil tamponade for retinal detachment repair in Cork University Hospital over 4 years (2010 – 2014) operated by one surgeon. We analysed 17 consecutive cases of S.O. tamponade (16 patients – 1 bilateral). One thousand centristroke silicone oil tamponade was used in each case. All cases had documented PVR preoperatively. Two patients (2 eyes) had previous retinal detachment repair with SF6 gas tamponade. Median duration of follow-up following initial S.O. insertion was 22 months. Eleven eyes underwent silicone oil removal. Median duration of S.O. tamponade among these 11 cases was 5.5 months; median duration of follow-up after S.O. removal was 11.5 months.

**Results:** Anatomical success after S.O. insertion was achieved in 15 of 17 cases (14 patients). Of these, S.O. was removed in 11 cases and was left in situ in 4 cases. Two eyes redetached under S.O. tamponade within 2 months of the initial S.O. insertion and had a second procedure with S.O. tamponade. At last follow-up, 10 cases remained attached following S.O. removal, 1 eye re-detached within 6 months of S.O. removal, 6 eyes remained attached under S.O. tamponade (including the two early redetachments). Visual acuity improved or remained stable post removal of S.O. in all 10 cases (median visual acuity 6/36). Complications included uncontrolled IOP in 2 eyes – one required trabeculectomy.

**Conclusions:** While reattachment and complication rates are similar to other studies, the majority of patients in this small series with complex retinal detachments achieved relatively good visual outcomes. The rate of redetachment following S.O. tamponade was low.

### Long Term Visual and Anatomic Results Following Vitrectomy for Macular Hole (MH) and Epiretinal Membrane (ERM)

Connolly S, Keegan D. Mater University Hospital Dublin, Mater Hospital Dublin

**Objectives:** Recent studies have demonstrated a negative long term impact of inner limiting membrane peeling in macular hole surgery. Other studies have shown a continued improving visual benefit in ERM surgery over five years. We aimed to study the long term visual and anatomic outcomes in, ERM and macular hole surgery in patients having surgery and report on patient demographics, intra-operative and post-operative complications and visual outcomes.

**Methods:** This study was a retrospective case series, of patients who underwent vitrectomy for MH/ERM/VMT in a single centre 2008-2010 by a single surgeon (DK). The clinical and operative notes were assessed and the following data extracted for each eye undergoing surgery: demographics, pathology, procedural data, complications, cataract surgery and visual acuity.

**Results:** 39 eyes of 35 patients underwent vitrectomy for macular hole, and 30 eyes of 28 patients underwent vitrectomy for ERM during the study period. All operations involved 23G vitrectomy-35/74= 47% with C2F6, 24.32% with air, 6.67% with SF6 and 6.67% with C3F8.

Of the 63 phakic patients, 10 (13.51%) underwent combined phacoemulsification, lens implantation and PPV, and a further 35 (47.2%) underwent subsequent cataract surgery. 5.4% of eyes underwent repeat surgery for macular hole or ERM, and 2.7% for retinal detachment repair.

Median preoperative visual acuity was 6\36, range 6\9 to HMs; median VA at 1 month postoperatively was 6\24, range 6\9 to HMs. 54% of eyes gained ≥2 Snellen lines at 6 months, and 70.2% of eyes maintained this gain at last follow up.

**Conclusions:** This study provides long term data on the demographics, complications and visual outcomes of vitrectomy for ERM and macular hole.

### Clinical Outcomes of 25G Pars Plana Vitrectomy for Macular Hole Repair: A 2-year Audit

Paryani H, McAnena L, Kilmartin D. Royal Victoria Eye & Ear Hospital Dublin

**Objectives:** To evaluate the functional and anatomical outcomes of 25G Pars Plana Vitrectomy (PPV) for macular hole repair over a 2 year period and the prognosticators affecting their success.

**Methods:** We performed a retrospective analysis of the case records from patients undergoing 25G PPV for macular hole repair between May 2012 and April 2014 of a single surgeon (DK) at our centre (RVEEH). The following variables were evaluated patient age, hole stage, hole latency prior to surgery, preoperative acuity, simultaneous phacoemulsification and intraocular lens implantation. All procedures included internal limiting membrane peeling with indocyanine green and postoperative posturing as standard protocol.

**Results:** A mean of 105 25G PPVs were carried out over the course of each year, of which, a mean of 35 procedures were for macular hole repair. Anatomical and visual success was determined by shorter duration of symptoms, hole stage and better preoperative visual acuity.

**Conclusions:** Macular hole closure rate following surgery was inversely proportional to hole latency as anatomical closure rates decreased with increasing hole chronicity. Another important predicator for visual outcome was noted to be good preoperative visual acuity. Further evaluation of the above results is in progress and we hope to evaluate the efficacy of 25g PPV and the improvement in this technique over the past 2 years as revealed by the clinical outcomes.

#### **Detection of Serum Biomarkers in Age Related Macular Degeneration**

Elshelmani H, Saad T, O'Driscoll L, Wride M, Keegan D. TCD, Mater University Hospital Dublin, UCD

**Objectives:** Currently, there are no known minimally-invasive biomarkers of relevance to AMD. The presence of circulating microRNAs (miRNAs) in the peripheral circulatory system with potential as diagnostic, prognostic and/or predictive biomarkers has been reported in a number of conditions/diseases.

We aimed to establish whether any circulating miRNAs may exist which are associated with AMD and so may be used for rapid screening, early diagnosis, disease sub-typing, and/or treatment selection for AMD.

**Methods:** This proof-of-principle study involved total RNA isolation from sera specimens from patients with (i) atrophic AMD (n=30), (ii) neovascular AMD (n=30), and (iii) age- and gender-matched controls (n=30). 377 miRNAs were co-analysed in each of these specimens using array technologies and differential detected miRNAs were determined using a range of bioinformatics approaches.

**Results:** Unsupervised hierarchical clustering (performed using dChip software) indicated that AMD serum specimens have a different miRNA profile compared with those of healthy controls. 53 miRNAs were found to be detectable at significantly higher levels in serum specimens from neovascular patients and 11 miRNAs in atrophic patients compared with control sera. Interestingly, only 7 differentially-expressed miRNAs overlapped between atrophic and neovascular patient groups, suggesting biomarker specificity for different types of this condition.

The biomarker potential of three miRNAs (miR-126, miR-19a and miR-410) was confirmed by qPCR, with significantly increased expression in serum of AMD patients compared with healthy controls.

To further investigate potential functional roles of these circulating miRNAs in AMD, DIANA lab-mirPath was used to predict a number of significant pathways which are regulated by these circulating miRNAs, some of which are involved in AMD development and progression, e.g. the complement and coagulation cascade.

**Conclusions:** The miRNA profile identified here showed three statistically significantly differentially expressed miRNAs between the AMD and control samples, suggesting that circulating miRNAs may have potential as diagnostic biomarkers for both atrophic and neovascular AMD.

## Paper Presentations Thursday 14<sup>th</sup> May, 2015 11:45am

## Pellino3 as a Novel Target for the Treatment of Primary Sjogren's Syndrome Related Dry Eyes

Pilson Q, Smith S, Jefferies C, Ní Gabhann 1, Murphy C. Molecular and Cellular Therapeutics department, RCSI, Ophthalmology department, Royal Victoria Eye and Ear Hospital, Ophthalmology department, RCSI

**Objectives:** In Sjogren's syndrome (SS), a combination of reduced aqueous tear production from lacrimal gland destruction and increased tear osmolarity leads to inflammatory damage to the ocular surface. Mechanisms that regulate pathogenic cytokine production are dysregulated in patients with SS. microRNAs (miR) are known to alter the expression of inflammatory cytokines, which plays an important role in the pathogenesis and progression of SS. Current studies have shown differential expression of certain miRs in SS compared to healthy controls. However, there are no further studies determining the function of these miRs. The aim of this study was to isolate miRs and mRNA from conjunctival epithelial cells of patients with primary SS (pSS) and healthy controls to identify potential biomarkers that might aid diagnosis and future therapy in pSS.

**Methods:** pSS patients recruited using the American-European Consensus Group classification criteria (AECG) and dry eyes confirmed using Schirmer's 1 test, Van Bijsterveld and Oxford scheme ocular surface staining, tear break up time (TBUT). Age and sex matched healthy controls were recruited for comparison. Isolation of miRs using miRNeasy kit and mRNA using TRIzol from Impression cytology were optimized using Immobilon PSQ, Biopore and Hanging Cell culture inserts. mRNA sent to Ocean Ridge Biosciences for miRs and mRNA microarray screening. Bioinformatic analysis using freely available online platforms including miRWalk, MiRDB and miRanda Tools were used on the miRs screen data to find predicted targets and comparison was made with the mRNA microarray data. Validation experiments were performed on Hela cells. Transfections of the cells were done with the chosen miR-A mimic and the expression levels of the miRs and predicted gene were detected using qPCR.

**Results:** miR microarray found 11 significantly increased and 21 significantly decreased novel miRs in pSS patients compared to healthy controls. mRNA microarray found 62 significantly increased and 74 significantly decreased genes. Following bioinformatic analysis, novel miR-A was chosen for further analysis. miR-A was significantly increased in pSS (p=0.0079) and bioinformatics suggested Pellino3 (PELI3), a negative regulator of inflammatory cytokines, as a predicted target. The mRNA microarray showed a decrease in PELI3 in pSS patients compared to healthy controls (p= 0.0731). Additionally, over expression of a miR-A mimic in Hela cells resulted in decreased expression of PELI3, suggesting that it is a direct target for miR-A.

Conclusions: In conclusion, we have identified differentially expressed miRs and predicted targets from conjunctival epithelial cells in pSS compared with healthy

controls. PELI3, a potential target of novel miR-A, which is over expressed in pSS, is a negative regulator of cytokines that might have biomarker and therapeutic potential for pSS related dry eyes.

#### Dendritic Cells in Non-Infectious Anterior Uveitis

O'Rourke M, Canavan M, Fearon U, Murphy C RCSI Department of Ophthalmology, Royal Victoria Eye and Ear Hospital Education and Research Centre, St Vincent's University Hospital, Dublin

**Objectives:** Anterior uveitis (AU) refers to inflammation in the anterior chamber of the eye. Innate immunity is activated when toll-like receptors (TLRs) on antigen presenting cells become activated leading to subsequent activation of inflammatory cascades. Dendritic cells (DC) are professional antigen presenting cells (APCs), which can be divided into 2 major subsets – myeloid (mDC) and plasmacytoid (pDC). TLRs promote maturation of APCs by production of pro-inflammatory cytokines and up-regulation of co-stimulatory molecules. This study compares APC percentage, activation status and intracellular cytokine production of mDC and pDC in circulation of AU patients to healthy controls (HCs). The inflammatory cell profile in inflamed aqueous humor (AqH) of AU patients was also carried out.

**Methods:** Circulating DC were defined as HLADR+, Lineage- and further subdivided as myeloid (CD11c+) or plasmacytoid DC (CD123+). CD40, CD80 and CD83 cell surface expression was used to assess activation and maturation status of each subtype. After cell permeabilisation, intracellular cytokine staining was carried out for IL-10 and TNFa under basal, TLR4 (LPS), TLR7/8 (Resiquimod) and TLR9 (CpG) stimulated conditions. To examine the local inflammatory response, approximately 250uL of inflamed AqH from active AU patients was centrifuged to obtain a cell pellet and stained for CD45, HLA DR and CD11c.

**Results:** AU patients have a decrease in circulating mDC and pDC compared to healthy controls (HC) (p<0.05). CD40 expression on mDC in AU patients is increased (p<0.05) with no differences in CD80 and CD83. There was no difference in IL10 or TNFa production under basal conditions. However, pDC showed hypo-responsiveness to TLR4 stimulation with lower IL10 and TNFa production in AU compared to controls (p<0.05). Inflamed AqH cells were CD45+ with approximately 1% being HLA DR+CD11c+.

**Conclusions:** These results provide evidence that DCs are recruited to the eye from the circulation during AU with decreased numbers in circulation and a population of DC present in the inflamed AqH. Circulating DC may be tolerised to TLR4 stimulation with decreased cytokine production on stimulation. Current work is profiling cytokine concentration in AqH and the functional effect of inflamed AqH on HC monocyte derived DC model co-cultured with T cells.

### Discovery of a Homozygous Recessive RPE65 Mutation in an Irish Horoideraemia Pedigree

Duignan E, Carrigan M, Farrar GJ, Kenna P.

Research Foundation, Royal Victoria Eye and Ear Hospital, Smurfit Institute of Genetics, Trinity College Dublin.

**Objectives:** To describe the genotypic and phenotypic characteristics of a family in which a clinical diagnosis of choroideraemia was made in the proband and segregation of the retinopathy in the wider family was consistent with X-linked inheritance.

**Methods:** This work was carried out as part of the Target5000 initiative by Trinity College Dublin, with support from Foundation Fighting Blindness and the Health Research Board to elucidate the genotype and phenotype of patients in Ireland with inherited retinal degenerations. Phenotypic information was collected in the Research Foundation, RVEEH, including visual acuity, Goldmann visual fields, electroretinorgram, autofluorescence and fundal photography. A thorough history of disease events was taken. Genotype information was collated using next generation sequencing (Illumina platform) in the Genetics Department at TCD.

**Results:** A pedigree of choroideraemia patients were identified and underwent next generation sequencing. One branch had a CHM mutation at codon 239 as expected, thus confirming the clinical diagnosis. Another branch of the family related to the proband through the female line and consisting of three brothers, aged 65-71, with advanced retinopathy, were found to have an unexpected homozygous recessive RPE65 mutation, which is classically causative of Leber Congenital Amaurosis. Due to the advanced nature of the disease in these patients, the fundal appearance and the linkage through the maternal line would have supported a presumptive diagnosis of choroideraemia.

**Conclusions:** Next generation sequencing can confirm molecular diagnoses suggested by phenotype and pedigree data and can reveal unexpected diagnoses that are essential to prognosis, genetic counseling, and future selection of patients suitable for genetic therapies.

# Posters Wednesday 13<sup>th</sup> May, 2015 12pm

#### Neuro-Ophthalmic Manifestations in Behcet's Disease – a Case Report

Vartsakis G, Logan P. Beaumont Hospital Dublin

**Objectives:** Behcet's disease (BD) is a chronic, relapsing, occlusive systemic vasculitis of unknown origin. The frequency of neurological involvement in BD (Neuro-Behcet's disease, NBD) is very variable and in hospital-based series percentages as low as 1-3% and as high as 59% have been reported. There are two categories of CNS involvement in BD: parenchymal (meningoencephalitis) and non-parenchymal NBD with vascular complications including thrombosis and aneurysms formation or dissection.

Method: A 35-year-old female was transferred to Beaumont Hospital with 1 week history of generalized severe headache iterfering with her sleep, associated with orogenital ulceration and visual disturbances more prominent in the left eye. She had a previous medical history of recurrent mouth aphthous ulceration since the age of 15, recurrent folliculitis and genital ulceration 4 years ago that was managed as HSV-2 related infection. MRI Brain showed several T2 and FLAIR hyperintense white matter lesions compatible with small vessels disease, dilatation of the subarachnoid space around the optic nerves and decreased tortuosity of the optic nerves reflecting raised intracranial pressure. On T2 sequence the flow void of the superior sagittal sinus was markedly attenuated and MRV head confirmed no flow related enhancement in the anterior two thirds of the superior sagittal sinus. On examination her visual acuity was 6/9 in both eyes and a mild left relative afferent pupillary defect was present. Dilated fundoscopy revealed bilateral severe optic disc oedema with peripapillary flameshaped haemorrhages, obscuration of the retinal vessels, venous dilation and tortuosity. Multiple left intraretinal heamorrhages were seen without evidence of macular oedema, vasculitis or uveitis. On orthoptic assessment a small esotropia for distance was measured which was concomittant and was considered as decompensated pre-existing phoria rather a new sixth nerve palsy. On kinetic perimetry both blind spots were enlarged and the visual filed of the left eye appeared constricted superiorly and inferiorly. Pathergy was noticed at all canulation sites.

**Result:** A diagnosis of NBD-related cerebral venous thrombosis was made and she was treated with high dose intravenous methylprednisolone and a pulsed intravenous dose of Cyclophosphamide. This was followed by an increasing dose of Mycophenolate (Cellcept) and systemic prednisolone (20mg) which was gradually tapered. Regarding the venous sinus thrombosis unfractionated Heparin was initiated which was changed to low-molecular-weight Heparin and subsequently started on Warfarin with the aim of continuing it for 6 months. Her symptoms greatly improved and her visual acuity returned to 6/5 in both eyes however she developed mild left optic atrophy with colour desaturation and constricted visual filed of the left eye.

**Conclusion:** Cerebral sinus thrombosis (CST) is a well-established cause of intracranial hypertension and papilloedema especially in females younger than 40 years of age due to its higher icidence during pregnancy and among patients who take oral contraceptives. Vasculitis and more specifically NBD is an uncommon cause of CST and should be suspected in the presence of typical systemic signs associated with BD.

#### Clinical Review of Referrals for Investigation of Suspected Swollen Optic Discs

Stewart S, George S.
Department of Ophthalmology, Royal Victoria Hospital, Belfast

**Objectives:** Clinical experience suggested that children with suspected swollen optic discs were being managed in a highly varied manner, and often undergoing multiple and significant investigations. This study aimed to identify the source of referrals, number and type of investigations performed, and underlying diagnosis in order to review current clinical practice and identify areas for improvement.

**Methods:** Retrospective observational study. Data was collected from case notes and electronic records for all patients referred to Paediatric Ophthalmology Primary Care Clinic (POPCC) for investigation of swollen optic discs from March 2014 to February 2015.

**Results:** 22 patients (14 female, 12 male, mean age 9.32 years) were referred for investigation of suspected swollen optic discs. Referrals were most commonly received from community opticians (40.9%) and paediatricians (40.9%). The majority of patients were found to have either optic disc drusen (31.8%) or normal discs (27.3%). Four patients (18.1%) had optic disc swelling secondary to space-occupying lesions – all of these patients were systemically unwell and had signs of optic nerve compromise. Five patients with optic disc drusen or normal discs, who were otherwise asymptomatic, received neuroimaging, three underwent blood tests and one had a lumbar puncture prior to ophthalmic assessment.

**Conclusions:** Children in this study with optic disc swelling secondary to raised intracranial pressure all had systemic symptoms and signs of optic nerve compromise. However, some children who were visually and systemically asymptomatic, and ultimately received a diagnosis of optic disc drusen or normal discs, underwent multiple and invasive investigations. While it is important to urgently assess children with suspected optic disc swelling, not all cases warrant neuroimaging or systemic investigations prior to ophthalmic assessment.

#### Rare Case of Fibrous Dysplasia of Orbit

Arfat MY, Gareth H, Stoke J. University Hospital Waterford

**Objectives**: To Describe a rare Case of Unilateral Fibrous Dysplasia of Orbit. Fibrous Dysplasia is a benign tumour of bones and is disease of unknown etiology. This report discusses a case report of hypoglobus with associated bony mass in superior wall of left orbit due to Fibrous Dysplasia.

**Methods**: Patient 27 year old, was presented in eye casualty with complaint of swelling of left eye from two weeks. She had increased pain and slight blurring of visual acuity. On examination her visual acuity was 6/6 in right eye and 6/7.5 in the left eye, normal colour vision and normal intraocular pressure. She had left ptosis and moderate left hypoglobus. There was restriction of elevation on left side and sensation of discomfort on attempted up gaze. There was no relative afferent pupillary defect and no evident proptosis. Fundi were normal.

Patient notes and radiological findings were reviewed. Literature review was done.

**Results**: Fibrous Dysplasia should be considered in differential diagnosis of dystopia. Radiological findings were a key factor in diagnosis of Fibrous Dysplasia of Orbit.

**Conclusions**: Fibrous Dysplasia of Orbit is rare. Radiological finding are key in diagnosis of this Disease.

### Objective Assessment of Symptomatic Vitreous Floaters Using Optical Coherence Tomography.

Kennelly K., Morgan J, Keegan D, Connell P. Department of Ophthalmology, Mater Misericordiae University Hospital, Dublin.

**Objectives:** Patients with symptomatic vitreous floaters are often highly motivated for surgery. However, vitrectomy carries risks including retinal breaks and detachment, proliferative vitreoretinopathy, choroidal haemorrhage, macular pucker, and cataract progression. Justifying floaterectomy without an objective assessment of the presenting complaint can be difficult, particularly in healthy eyes with normal visual acuity and without a posterior vitreous detachment. We assessed the use of ocular imaging technologies in objectively assessing the visual impact of large vitreous opacities.

**Methods:** A 37-year-old female complained of a ring-like floater due to a pigmented vitreous cyst in her left eye. Visual acuity was 6/6 and the posterior vitreous was not detached. Humphrey and Goldmann visual fields were normal. Colour fundus photographs, B-scan ultrasonography and spectral domain optical coherence tomography (OCT) of the cyst and macula were performed.

**Results:** A 4.31mm free-floating semi-translucent cyst with a hyperechogenic, pigmented surface was suspended in the mid-vitreous cavity, in the visual axis. OCT demonstrated shadowing on either side of the fovea consistent with the scotoma described by the patient. The 3D-reconstructed macular cube OCT revealed a circular shadow on the macula. At 3-month follow-up her symptoms had almost fully resolved as the cyst migrated to the inferior vitreous cavity, no longer casting a shadow on the macula.

**Conclusions:** This is the first description of using OCT as an objective, qualitative assessment of symptoms caused by vitreous opacities and may provide a simple yet useful tool in evaluating the risk-benefit ratio of vitrectomy in patients with symptomatic vitreous floaters.

# Visual and Refractive Outcomes in Patients with High Astigmatism Following Cataract Surgery with Toric Lens Implantation

Kobayter L, Mullaney P. Sligo General Hospital, Sligo

**Objectives:** To audit the visual and refractive outcomes following all cases of cataract surgery with toric lens implantation between 2012-2015 in our local ophthalmology department in Sligo General Hospital

**Method:** A retrospective audit of 33 eyes of 23 patients with differences in keratometry readings (delta k) above 2.50 (ranging from 2.97 - 8.44) and a visually significant cataract undergoing cataract surgery with toric lens implantation, was conducted. Visual and refractive outcomes were obtained at their routine postoperative assessment (one month following surgery) and compared to preoperative data and international standards. Results: Postoperatively, both mean unaided (UDVA) and best corrected distance visual acuities (BCDVA) improved significantly compared to the mean preoperative visual acuity. LogMAR 0.87 +/- 0.64 (Snellen: 6/48) preoperatively vs. 0.38 +/- 0.2 (Snellen: 6/15) UDVA and 0.19 +/- 0.18 (Snellen: 6/9.5) BCDVA, p=<0.001.

In 21% of patients there was no difference between the unaided visual acuity and the best corrected visual acuity, allowing for complete spectacle independence.

Mean delta k values derived from preoperative biometry calculations were: 5.08 +/- 1.3. Postoperatively, the majority of patients (67%) had a residual refractive cylinder of -1.5 or less, and the overall mean residual cylinder provided after their visit to their optometrist was -1.62 +/- 1.33.

**Conclusion:** Toric lens implantation can be safely and effectively incorporated into a general cataract surgery list and can serve to correct high values of corneal astigmatism, allowing for relative or complete spectacle independence. Our postoperative unaided visual acuities are comparable to international studies using toric lens implantation during cataract surgery.

#### Limbal Relaxing Incisions to Improve Stigmatism Following Cataract Surgery

Farrell S, Mullaney P. Sligo Regional Hospital, Sligo

**Objectives:** Cataract surgeons use cutting biometry systems and intra-ocular lenses as standard to reduce refractive errors post-operatively. However many patients fail to achieve emmetropia following surgery. This is frequently due to post-operative astigmatism. Techniques to reduce post-operative astigmatism include on-axis incisions, limbal relaxing incisions or insertion of toric intraocular lenses. While toric intraocular lenses are expensive, limbal relaxing incisions can be performed at little cost. We wished to review the efficacy of this technique in controlling astigmatism following cataract surgery.

**Methods**: In this retrospective study, all patients who underwent cataract surgery with limbal relaxing incisions under the care of a single consultant in Sligo Regional Hospital over a 1 year period were reviewed. Parameters including pre-operative keratometry and pre-operative refraction, were recorded. Post-operative refraction and post-operative visual acuity with and without correction were recorded.

**Results:** 153 patients underwent limbal relaxing incision following cataract surgery during the one year period from February 2014 to February 2015. These patients had a mean keratometric astigmatism of 2.21D (range 1.51 to 7.5D) and a mean astigmatism on refraction of 1.85D (range 0 to 8.75). Post-operative refraction was available on 124 patients. Mean astigmatism on refraction post-operatively was 1.17 D (range 0 to 7.25D). As pre-operative refraction is unreliable due to the presence of cataract and post-operative biometry was not available in this cohort we compared pre-op keratometric astigmatism and post-op refractive astigmatism. The mean improvement in absolute astigmatism following cataract surgery with LRI in this cohort was 1.06D (range 2.96D reduction to 1.16D increase in astigmatism). Astigmatism increased in 12 patients.

**Conclusions:** This study of a large cohort of patients shows that Limbal Relaxing Incisions are an effective, easy and cost effective method of reducing post-operative astigmatism however should be compared with other methods such as toric intra-ocular lens insertion as we aim to overcome post-operative astigmatism.

#### Risk Factors in Post Cataract Surgery Endophthalmitis

McCullagh D, Curragh D, Hassett P. Altnagelvin Area Hospital, Derry

**Objectives:** To investigate for the presence of established risk factors for endophthalmitis in a group of 29 patients operated on over 2 days among whom a cluster of 4 cases of endophthalmitis occured, and to investigate for other trends among the affected and unaffected patients including keratometry values.

**Methods:** Retrospective audit of patient and operative notes was performed against standards set from the European Society for Cataract and Refractive Surgeons (ESCRS): Guidelines for the prevention and treatment of endophthalmitis following cataract surgery (2013).

Collected and analysed data on keratometry to see if there was any relationship between corneal curvature and risk of developing endophthalmitis.

**Results:** There were no obvious differences in (ESCRS) risk factors between Endophthalmitis and Non-Endophthalmitis patient groups, apart from one case where there was dense cataract, an iris bleed and reverted to ECCE.

Therefore were there other reasons why some patients developed endophthalmitis? Patients who developed endophthalmitis had flatter corneas than those who did not develop endophthalmitis.

**Conclusions:** This was a homogenous patient group overall, and we found no obvious differences in risk factors between the Endophthalmitis and Non-Endophthalmitis patient groups.

Small difference in keratometry values suggests patients with flatter corneas have an increased likelihood of developing endophthalmitis.

#### Practice Trends in the Routine Administration of Intravitreal Anti-VEGF Injections

Fogarty H, Idrees Z.

Department of Ophthalmology, University College Hospital Galway.

**Objectives:** The aim of our survey is to identify practice trends and inter-hospital practice differences in the routine administration of anti-VEGF injections in the outpatient setting.

**Methods:** A survey was e-mailed to all consultants working in hospitals in the Republic of Ireland as well all Ophthalmology NCHDs. The survey could be completed either via an online link or by word document. The results were collected over a period of one month and data subsequently analyzed.

**Results:** Pending, awaiting completed survey responses (survey issued on 24/2/15 with 16 responses total to date 26/2/15)

**Conclusions:** Pending, awaiting completed survey responses

### Comparison of the Southeast Intravitreal Injection Protocol for ARMD to International Guidelines

Stephenson K, Henry E, Doris J. University Hospital Waterford, Waterford

**Objectives:** To assess the current status of the southeast intravitreal injection service for age-related macular degeneration (AMD) compared with the standard of the Moorfield's Guidelines.

**Methods:** The clinical records of all patients receiving intravitreal anti-VEGF agents for AMD during September & October 2014 were reviewed. The data assessed includes: initial visual acuity, timing of 1st injection from listing, delay between injections, timing between last injection and clinical review/OCT, final visual acuity, change in central retinal thickness and complications. Local data were compared with RCO/NICE guidelines with input from the IVAN/CATT trials. Suggestions to achieve international standards were made.

**Results:** Visual acuity outcomes were not in keeping with data from IVAN/CATT trials. Patients receiving ranibizumab had their injections within 10 days of their 4 weekly intervals. However patients receiving bevacizumab had their injections within 10 days of their 6 weekly intervals. This resulted in a gap of nearly 2 months between injections in some cases.

Causes for delay in injection included: need for repeat MRSA screening swabs, uncontrolled cardiac risk factors, same eye infections on day of scheduling and patient non-attendance.

**Conclusions:** Suggestions to decrease delays from injection include opening a further half/full day intravitreal injection list weekly, administering injections at 4 weekly intervals for both ranibizumab and bevacizumab, opening a second sterile injection room to increase capacity of existing lists, and 'virtual clinics' with off-site VA and OCT acquisition and central review. A re-audit after implementation of improved service provision will be undertaken in 6 months time.

### An Audit of the Diabetic Retinopathy Treatment Programme in University Hospital Galway (UHG).

Goodchild.C, O'Halloran.O, Idrees. Z. University Hospital Galway, Galway

**Objectives:** To audit the delivery of the Diabetic Retinopathy Treatment Programme in UHG.

**Methods** Retrospective review of referral letters, clinic notes and patients data from National Diabetic Screening Programme fulfilling referral criteria from November 2014 to January 2015.

Results:92 patients (183 eyes) were seen in the above time period with 5 DNA's. The average waiting time for urgent referrals was 15 business days, negatively skewed by referrals received over the Christmas period. Non-urgent referrals had a waiting time of 33 business days. There were 73 eyes referred with proliferative (R3-stable and active) retinopathy and 89 with diabetic maculopathy. In clinic, proliferative (R3-stable and active) retinopathy was diagnosed in 77 eyes and diabetic maculopathy in 54 eyes. The sensitivity and specificity for detecting proliferative diabetic retinopathy is 89% and 93%, whereas for diabetic maculopathy is 85% and 64% respectively. OCT was performed in 65 patients and FFA in 14 patients. 22 patients received treatment (12 Laser, 10 intravitreal Injection). Of the 62 eyes with other ocular pathology the majority had ARMD (29%) and Cataracts (37%).

#### Southeastern ROP Screening Audit – Initial Survey and Recommendations

Stephenson K, Stokes J. University Hospital Waterford, Waterford

**Objectives:** To assess the ROP screening system in the NICU/SCBU of one regional eye unit and compare this with international guidelines. This information is to be used to increase screening efficiency between eye units and expedite referral for treatment.

**Methods:** The logbook of ROP screening assessments was reviewed with data for five years (2010 – 2014). The gestational age, age at first screening, interval between screening episodes, number of referral for treatment and date of screening cessation. All data is from SCBU/NICU reviews only and does not include screening episodes from outpatient clinics. This data was compared with RCO guidelines and suggestions for improvement were made.

**Results:** On average 140 screening episodes were performed in the NICU/SCBU per year. Review frequency and criteria for treatment was in keeping with RCO guidelines for the relevant years. Information leaflets on ROP screening were not routinely provided for parents within this treatment centre.

**Conclusions:** The main issues arising on this audit are maintaining continuity of screening for patients that are discharged or transferred to other centres and the lack of routine parent information leaflets.

We suggest a computerized national record of all premature neonates meeting screening criteria. This would ensure an efficient and comprehensive national ROP screening program which would limit the visual impact of a preventable cause of visual loss in this demographic.

### Update on Creating an Inherited Retinal Diseases Registry Recruitment at the Mater Misericordiae University Hospital

Saad T, Keane H, Keegan D.

Mater Misericordia University Hospital, Dublin, Clinical Research Centre, Mater University Hospital, Fighting Blindness.

**Objectives**: 1. To form a Registry of patients in Ireland with Early-onset Severe Retinal Dystrophy (EOSRD) and late onset Adult Retinal Dystrophy (AORD).

- 2. To phenotype and genotype such patients.
- 3. Develop cohort of patients suitable for innovative treatments including gene therapy.

**Methods:** This study represents an updated Case Series of patient referrals from Ophthalmologists and clinics at MMUH with EOSRD and AORD. Patients were provided with information about the study, taken through the consenting process and then clinically assessed by the Principal Investigator following which they were phenotyped and a clinical diagnosis made.

All patients were photographed with colour photos, autoflourescence, optical coherence tomography and referred for visual field assessment and some for electro-diagnostics.

Bloods from these patients were then sent for next generation sequencing (NGS) to Department of Ocular Genetics, Trinity College Dublin.

**Results:** So far we have recruited further 50 patients at the Mater site since the expansion of the study over the last one year (total of 60 in all). We have genetic results back for 12 of the initial patients and other results are pending.

Phenotypically, this cohort of patients were representative of conditions like: Leber's Congenital Amaurosis, Stargardt's disease, Usher Syndrome, Retinitis Pigmentosa and Macular Dystrophies (either cone/rod based, rod-cone or predominantly cone based) and all will be presented.

**Conclusions:** According to phenotype, the patients from this study can be grouped into the following 3 groups.

- 1. Those patients who have an inherited condition with a classical phenoptype and a positive family history of the same condition like Stargardt's Disease or Usher syndrome.
- 2. Those who have clinical findings of a typical phenotype of an inherited retinal condition and have a family history (eg., Cone-Rod Dystrophy) and finally
- 3. Those patients who are suspicious of an inherited retinal disease and present with consistent findings but no family history.

#### Microbial Keratitis: An Audit of Sample Collection and Microbiological Findings

Guevara G, Stokes J, Henry E, Higgins G. University Hospital Waterford, Waterford

**Objectives:** To report the microbiological findings, compare the rate of detection of causative organism to the literature and review the local organisms grown in patients presenting with microbial keratitis (MK).

**Methods:** This was a retrospective study of all cases of presumed MK who had presented to a tertiary referral centre over a 2-year period (January 2012 to November 2014). Data recorded included demographic data, details relating to possible risk factors and results of microbiological studies and clinical outcome.

**Results:** A total of 71 corneal scraping samples were sent from 59 patients with a diagnosis of presumed MK during the study period. The male to female ratio was 35:24 (59%:41%). There was no growth seen in 54.9% (n=39). 10 patients had repeated corneal samples sent within the study period. Cultured organisms included gramnegative bacteria (10) gram-positive bacteria (21) and fungi (2).

**Conclusions:** Studies have shown no statistically significant different between solid and liquid culture media for bacterial organisms. Given our low growth rate a new protocol for corneal scrapings is being introduced in our institution. This involves the collection of two corneal scrapes, one used for Gram staining and the other transported in BHI followed by plating and subculturing in an enrichment medium by the microbiology department. We plan to re audit our findings after a suitable time period.

#### **Past Presidents**

**2011 – 2013**; Miss Patricia Logan

**2009 – 2011;** Mr Paul Moriarty

**2007 – 2009**; Mr Peter Tormey

**2005 – 2007**; Mr. Robert Acheson

2003 -2005; Prof. Philip Cleary

2001-2003; Mr. Brendan Young

1999-2001; Professor Louis Collum

**1997-1999**; Mr. Roger Bowell

1995-1997; Mr. John Nolan

1993-1995; Professor Peter Eustace

**1991-1993**; Mr. Stewart Johnston

#### PAST HONORARY LECTURES AND MEDAL WINNERS

Montgomery Lectures and Lecturers

#### Royal College of Surgeons in Ireland

2001 "Pathogenesis of Glautomatous Damage"

J. Flammer, (Basle)

2002 "What's new in Ocular Tumours and Pseudotumours?"

Dr. Jerry A. Shields (Philadelphia)

2003 "Advances in the Diagnosis & Management Carotid-Cavernous Sinus Fistulas"

Prof. Neil Miller (Baltimore)

2004 "Age – related maculopathy: New aspects of pathogenesis, prevention and treatment" Prof. Peter Wiedemann (Leipzig)

2005 "Biological Treatments of AMD"

Prof. Alan Bird (London)

#### University of Dublin, Trinity College

2006 "Developmental Eyelid Abnormalities"

Mr Richard Collin (London)

2007 "Is there any Room for Surgery in AMD Treatment now?"

Prof Dr Bernd Kirchhof (Dusseldorf)

2008 'Normal tension Glaucoma-does it exist?

Prof Roger Hitchings (London)

2009 "Practical Thoughts on how we Doctors can Best Help our Patients,

Ourselves and the World"

Dr Geroge Spaeth (Philadelphia)

2010 The Lecture was not held due to the untimely death of Mr John Lee

#### Royal College of Surgeons in Ireland

2011 "Novel Therapeutic Approaches for Diabetic Retinopathy"

Prof Loyd Paul Aiello (Boston)

2012 "Endothelial Keratoplasty: DMEK or DMET - what if Fuchs endothelial dystrophy does not exist?"

Dr Gerrit Melles (Amsterdam)

2013 "Ophthalmoscopy in the 21st century"

Prof Nancy Newman (Atlanta)

2014 "Physics in Everyday Ophthalmology and Vitreoretinal Surgery"

Prof David Wong (Hong Kong)

#### Mooney Lecture and Lecturers

2002 "What is Neuro-Ophthalmology"

Professor Peter Eustace, (Dublin)

2003 "Worldwide Eye Disease - It's Prevention and Treatment"

Professor Gordon Johnson

2004 "The Twist and Turn of Macular Surgery"

Mr. David Wong (Liverpool)

2005 "Challenging Cases and the Management of Complication during Cataract Surgery"

Mr. Robert Osher (Cincinnati)

2006 "Reconstruction of the Anterior Segment"

Mr Bruce Noble (Yorkshire)

2007 "Wavefront-Guided Refractive Surgery: Advances and Impediments"

Dr Dimitri Azar (Chicago)

2008 "An Update on Amblyopia"

Prof Gunther von Noorden (Houston)

2009 "Evolving Concepts in Pharmacologic Vitreolysis"

Dr Brooks W. McCuen (North Carolina)

2010 "The Link between Infection and Uveitis"

Prof John Forrester (Aberdeen, Scotland)

2011 "OCT Application in Developing Eyes"

Prof Cindy Toth (North Carolina)

2012 "Retinal Oximetry in Health & Disease"

Prof Einar Steffanson (Reykjavik, Iceland)

2013 "Trans-synaptic Degeneration in the Human Visual System"

Dr Gordon Plant (London)

2014 "MERSI Guidelines for a Preferred Practice Pattern for the Care of Patients with

Recurrent or Steroid-Dependent Uveitis"

Prof Stephen Foster (Massachusetts)

#### Barbara Knox Medal Winners

2002 "Incubation with Endogenous Retinal Antioxidants Inhibits Chemokine Release by PRE in an In-Vitro Model of Age-Related Macular Degeneration"

G.T. Higgins

2003 "Macular Pigment Optical Density and Dietary Intake of Lutein and Zeaxanthin in Healthy Subjects"

J. Nolan

2004 "Correlation of Central Corneal Thickness with vascular risk factors in Normal Tension Glaucoma"

A. Doyle

2005 "A Randomized Placebo Controlled Double-Masked Phase 3 Study of the Treatment of Subfoveal Predominantly Occult Choroidal Neovascularization (CNV) Secondary to Age -Related Macular Degeneration (AMD) using Transpupillary Thermotherapy (TTT)"

A. Hogan

2006 "Survivin Expression & Prognostic Significance in Chorodial Melanoma"

C. Cleary

2007 "MRI as a Novel Non-Invasive Method for *In Vivo* Tracking of Endothelial Progenitor Cells in a Model of Choroidal Neovascularisation"

D. Kent

2008 "A Retrospective Study of the Paediatric Practice of one Community Ophthalmologist Over Seventeen Years in Cavan"

A. Blake

2009 "The Effects Of Acute Cigarette Smoke Exposure on Retinal Pigment Epithelial Cells (Arpe-19)"

S. Ni Dhughbhaill

2010 "Epidemiology And Clinical Associations Of Primary Retinal Detachment In Scotland: 2 Years Of Prospective Recruitment"

D. Mitry

2011 "Prognostic Indicators and Outcome Measures for Surgical Removal of Symptomatic Non-Advanced Cataract"

S. Charlampidou

2012 "Proteomic Research in Uveal Melanoma"

P. Ramasamay

2013 "The Dublin Uveitis Evaluation Tool (DUET) – an Algorithm for Earlier Diagnosis of Spondyloarthropathies by Ophthalmologists in Acute Anterior Uveitis"

M. O Rourke

2014 "A Molecular Analysis of Human Lamina Cribrosa and Trabecular Meshwork Cell Behaviours as Determined by the Surrounding Extracellular Matrix"

D Wallace

#### Sir William Wilde Medal

2000 "The Effects Of Topical Anti-Glaucoma Medications On The Ciliary And Optic Nerve Head Arterioles In The Rat Eye"

S. Byrne

2001 "Ocular Toxoplamosis-Pathogenesis Revisited".

H. McLoone

2002 "Gene Expression in Diabetic Reinopathy"

R. Kane

2003 "Exposure of Photoreceptor Outer Segments to Blue Light Induces a Pro-Angiogentic Response from the Retinal Pigment Epithelium"

E. Cosgrave

2004 "Investigation and Management of Epidemic Intraocular Lens Opacifcation"

R Altaie

2005 "The Photopic and Scotopic Visual Thresholds in Eyes with Solar Retinopathy: a Comparison with the Anatomical Damage"

L O'Toole

2006 "The Role of Sonic Hedgehog Protein in Ethanol-Induced Ocular Teratogenesis"

K. Kennelly

2007 "Visual Outcomes and Graft Survival following Corneal Transplants: the need for an Irish National Corneal Transplant Registry"

M Guerin

2008 "Age Dependent Rat Retinal Ganglion Cell (Rgc) Susceptibility To Apoptotic Stimuli: Implications For Glaucoma Research

M Guerin

2009 "A Cellular Model of Fuchs' Endothelial Dystophy"

C Kelliher

2010 "Prediction of Effective Lens Position Using A Method Independent Of Preoperative Keratometry Readings"

I. Dooley

2011 "Genomic Medicine and Stargardt Disease "

D. Armstrong

2012 "Childhood Craniopharyngiomas; the Irish Experience"

L. McAnena

2013 "To Evaluate Endothelial Cell Count Loss after Five Years Following Phakic Intraocular Lens Insertion"

C. Baily

2014 "Ocriplasmin in the Treatment of Vitreomacular Traction and Macular Holes"

L Hendricks

#### IRISH COLLEGE OF OPHTHALMOLOGISTS

The Irish College of Ophthalmologists (ICO) is the professional body for eye doctors in Ireland. The College is responsible for setting and maintaining the highest standards in ophthalmic training for doctors specialising in the field and for continuing medical education and professional development for those in practice. The ICO is recognised by the Medical Council as the only post graduate training body for Ophthalmology. The provision of best in class specialist education and training in ophthalmology is key to the enhancement of the College's role as the professional body for eye doctors in Ireland.

The central goal of the ICO is to maintain standards of excellence for the maintenance and restoration of vision and the preservation of sight through the education of its members, trainees and the public. This is achieved by setting and maintaining the highest standards in ophthalmic training for doctors specialising in the field and for continuing medical education and professional development for those in practice. The mission of the ICO is to reduce the number of annual cases of preventable blindness and vision impairment, to maintain vision and to extend and prolong, to the greatest extent possible, the length of time those who have vision impairment can continue to live independently.

The ICO is focused on its strong leadership role, providing accurate medical information to the public and policy guidance to the government. The ICO is dedicated to working with all relevant parties on the most appropriate model of care for Ireland based on excellence in medical care and patient safety. The College has long standing relationships and strong interaction with a broad range of both government and non-government institutions across healthcare planning, regulation and delivery through which it both promotes and supports the specialist training and education agenda.

The College aims to guarantee the highest standards of patient safety by ensuring that there is an agreed patient pathway in eye care. Through the Forum of Postgraduate Medical Training Bodies the College has supported the development of the clinical directorates and programme model which are a joint initiative between the HSE and the postgraduate training bodies. To demonstrate that commitment the College is funding the research under pinning the national programme for eye care as it evaluates present services in Ireland. The programme aims to deliver changes that will improve the current system in hospital and community care services, ensuring prompt detection, diagnosis and treatment.

As the expert body on eye care in Ireland the ICO takes a broad view on the delivery of care including treatment, diagnosis, prevention, patient safety, quality and cost of care. College policy is fully aligned with the transformation programme for the health services, in particular the concept of patients receiving treatment from the appropriate personnel, in the appropriate location, in a timely manner.

#### "Eye Doctors of Ireland, protecting your vision"

For further information visit www.eyedoctors.ie



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