

## **Welcome GRINNERS!**

A warm welcome to the 18<sup>th</sup> (we think that's accurate) GRIN conference taking place in Oxford. There has been scholarship on this site for almost a thousand years. Penicillin was first given to a human and cephalosporins discovered here. GRIN is a modern-day jewel in the crown of this tradition!

A lot of water has flowed under Balls Bridge since far-sighted people like Theo Verheij, An de Sutter, Ian Williamson and other giants in our field got together in Dublin in 1998 to establish GRIN. Since then, GRIN has met in many of the great cities of Europe, and brought more and more people into collaborations: there are over 100 delegates to this meeting. GRIN has broadened its scope beyond the respiratory tract to include all primary care infections. The program is much enriched now e.g. by major studies on urinary tract infections as well as skin and soft tissue infections. Diagnostics and viral infections have also become major themes. Furthermore, we have grown in rigor: in rating abstracts, we were just amazed by the stratospheric quality of the submissions. And all this has been achieved through an informal 'collective' rather than a formal committee structure.

GRIN has always been known for its friendly, supportive atmosphere. Was it not at our Oslo meeting when Morten Lindbaek coined the immortal phrase, the "GRIN Family"? And we are like a family: we support, work brilliantly together, and encourage each other, which has led to stellar national and international collaborations. We don't always agree, but somehow manage to argue in the finest spirit of constructive academic discourse; I can't think of anyone being sent to the naughty step at GRIN!

It's a particular pleasure to welcome Ben Goldacre, the legendary 'Bad Science' guy, who has done so much to raise consciousness of rigor in research among researchers, clinicians and the public: we keenly anticipate hearing more about the implications for infections research in primary care.

Many thanks to all who have helped make this Conference happen; Linnemore Jantjes, Emma Butterfield, and Dan Richards-Doran have done a tremendous organizational and communications job. We thank Lady Margaret Hall for hosting us. We are deeply grateful too for the support we have received from the Translational Research on Antimicrobial resistance and Community-acquired infections in Europe (TRACE), and from the University of Oxford's Nuffield Department of Primary Care Health Sciences.

Enjoy the science, the friendship, the collaborations, the setting, the history and the traditions of GRIN 2016!

## **THE 2016 GRIN COMMITTEE**

Chris Butler

Emma Butterfield

Dan Richards-Doran

Gail Hayward

Oliver van Hecke

Linnemore Jantjes

Sarah Tonkin-Crine

Jan Verbakel

Kay Wang

# Friday 30<sup>th</sup> September

**08:30-08:45 Registration**

**08:45-09:00 Welcome to Oxford/University by Chris Butler (Simpkins Lee Theatre)**

**09:00-10:00 Session 1: UTI (Simpkins Lee Theatre)**

**Chair: Jochen Cals**

1. DUTY-PCAR: retrospective cohort study investigating the prevalence of, and risk factors for, resistance in paediatric urinary bacteria - a follow-up to the DUTY study

Ashley Bryce, Ceire Costelloe, Mandy Wootton, Chris Butler, Alastair Hay

2. What clinicians want from decision aids for children with urinary tract infections (UTI): implications for antibiotic prescribing interventions

Christie Cabral, Rohini Terry, Harriet Downing, Alastair Hay

3. Uropathogen distribution and antimicrobial susceptibility in uncomplicated cystitis in a high antibiotics prescribing country: results of three observational studies over the past 20 years

Stefan Heytens, An De Sutter, Thierry Christiaens, Jerina Boelens, Geert Claeys

4. What do women with symptoms of cystitis but a negative urine culture have? PCR based quantification of *Escherichia coli* indicates that they have an infection after all

Stefan Heytens, An De Sutter, Liselotte Coorevits, Piet Cools, Jerina Boelens, Mario Vanechoutte, Thierry Christiaens, Leen Van Simaey, Geert Claeys

**09:00-10:00 Session 2: Methods (Monson Room)**

**Chair: Slawomir Chlabicz**

1. Comparison between treatment effects in a trial versus an observational study: the example of the GRACE study

Beth Stuart, Louise Grebel, Christopher Butler, Kerenza Hood, Theo Verheij, Paul Little

2. Educating parents about childhood fever and common infections in well-child clinics. Does it lead to reductions in physician consultations and improve medication management? A systematic review

Kirsten Peetoom, Jacqueline Smits, Luc Ploum, Jan Verbakel, Geert-Jan Dinant, Jochen Cals

3. (Cost)-effectiveness of Antivirals for Influenza-like-illness in primary care: Set-up and progress of the ALIC4E trial in 17 European Countries

Alike van der Velden, Johanna Cook, Theo Verheij, Christopher Butler

4. Global illness severity assessment and determinants for children presenting to primary care with cough and RTI: do parents and clinicians agree?

Esther T van der Werf-Kok, Niamh N Redmond, Sophie Turnbull, Hannah Christensen, Hannah Thornton, Peter S Blair, Brendan Delaney, Matthew Thompson, Paul Little, Alastair D Hay

**10:00-10:20 Tea/Coffee Break**

**10:20-11:20 Session 3: Diagnosis/Prognosis (Simpkins Lee Theatre)**

**Chair: Samuel Coenen**

1. Are we fair to the adventitious lung sounds in our research?

Hasse Melbye

2. Complications and new visits after pharyngotonsillitis in relation to etiology: a prospective two-year follow-up

Jon Pallon, Martin Sundqvist, Katarina Hedin

3. A Systematic Review of the Clinical Diagnosis of Bordetella Pertussis

Mark Ebell, Christian Marchello, Maria Callahan

4. Investigating symptom trajectories in children presenting to primary care with acute cough and respiratory tract infection: analysis of the 'TARGET' prospective cohort study

Alastair Hay, Knut-Arne Wensaas, Niamh Redmond, Sophie Turnbull, Hannah Christensen, Hannah Thornton, Tim Peters, Peter Blair, Jon Heron

**10:20-11:20 Session 4: Prescribing (Monson Room)**

**Chair: An de Sutter**

1. Clinical indications for antibiotic use. First data from a nationwide electronic prescription database in Danish General Practice

Rune Aabenhus, Malene Hansen, Laura Saust, Lars Bjerrum

2. Comparison of Out-of-hours and Office hours Antibiotic Prescribing Quantity and Quality in Primary Care

Alike van der Velden, Vera Debets, Theo Verheij

3. Patterns in antibiotic dispensing by non-medical prescribers in primary care across England: A retrospective analysis of data collected routinely between 2011 and 2015

Molly Courtenay, David Gillespie, Rosemary Lim

4. Paediatric antibiotic prescriptions in primary care in the Alpes Maritimes area of Southeastern France between 2008 and 2013

Pia Touboul, Pascale Bruno, Brigitte Dunais, Christian Pradier

**11:20-12:20 Session 5: Stewardship (Simpkins Lee Theatre)**

**Chair: Samuel Coenen**

1. General Practitioners' views on the acceptability of using quality indicators to reduce unnecessary prescription of antibiotics in South-America

Gloria Cordoba, Nieves Hernandez, Sandi Oliveira, Lidia Caballero, Miguel Suarez, Monica Olinisky, Luis Roushel, Marjukka Makela, Lars Bjerrum

2. An antibiotic stewardship gap? Exploring the views of A&E clinicians on antibiotic prescribing for children with fever

Sarah Tonkin-Crine, Sarah Walker, Shelley Segal, Mike Sharland, Derrick Crook, Chris Butler

3. Beat The Bugs: An educational programme on hygiene, antibiotics and self-care for the community setting

Vicki Young, Katie Tucker, Gill Parkinson, Nick Francis, Clodna McNulty

4. A modified McNulty-Zelen design randomised controlled trial to evaluate the TARGET Antibiotics toolkit (Treat Antibiotics Responsibly, Guidance, Education, Tools) and its implementation

Clodna McNulty, Meredith Hawking, Leah Jones, Rebecca Owens, Nick Francis, Chris Butler, Philippa Moore, Andre Charlett, Donna Lecky

**11:20-12:20 Session 6: Flu (Monson Room)**

**Chair: An de Sutter**

1. A systematic review and decision analytic model on the early use of antibiotics for 'at risk' children with influenza in primary care (ARCHIE)

Jane Wolstenholme, Kay Wang, Lucy Abel, Danielle Bargo, Anthony Harnden

2. Risk factors for influenza-related complications in children

Joseph J. Lee, Clare Bankhead, Margaret Smith, Antonis A. Kousoulis, Christopher Butler, Kay Wang

3. Barriers to the uptake of influenza vaccination in children under the age of 5 - primary care providers' and parents' perspectives

Ruby Biezen, Danilla Grando, Bianca Brijnath, Danielle Mazza

4. Influenza epidemic surveillance and prediction based on electronic health record data from an out-of-hours general practitioner cooperative: model development and validation on 2003-2015 data

Barbara Michiels, Kinh Nguyen Van, Samuel Coenen, Philippe Ryckebosch, Nathalie Bossuyt, Niel Hens

**12:20-13:20 Lunch (Denke Dining Hall)**

**13:20-14:00 Keynote Speaker: Ben Goldacre (Simpkins Lee Theatre)**

**Chair: Chris Butler**

**14:00-15:00 Session 7: Prevention (Simpkins Lee Theatre)**

**Chair: Nick Francis**

1. Investigating the relationship between vaccine status and the presence of respiratory microbes in children attending primary care

Georgina Taylor, Hannah Christensen, Niamh Redmond, Hannah Thornton, Sophie Turnbull, John Leeming, Andrew Lovering, Barry Vipond, Peter Muir, Peter Blair, Tim Peters, Alastair Hay

2. What are the effects of providing real-time data on locally circulating microbes on clinician management of common infections in primary care? A systematic review

Isabel Lane, Ashley Bryce, Suzanne Ingle, Alastair Hay

3. Colonisation rates of and risk factors for extended-spectrum beta-lactamase producing coliforms (ESBLPCs), and carbapenamase producing Enterobacteriaceae (CPE), in different sections of the asymptomatic general population in England

Clodna McNulty, Donna Lecky, Li Xu, Deborah Ssenabulya, Keun-Taik Chung, Tom Nichols, Adela Bullya, Kim Turner, Sahida Shabir, Susan Manzoor, Lucy Thomas, Mike Thomas, Stephen Smith, Linda Crocker, Rebecca Owens, Peter Hawkey

4. An internet-delivered handwashing intervention to modify respiratory infection transmission (PRIMIT): sub-group analysis of potential high risk groups

Beth Stuart, Paul Little, Michael Moore, Richard Hobbs, Judy Joseph, Sasha Miller, Lucy Yardley

**14:00-15:00 Session 8: RTI in Children (Monson Room)**

**Chair: Moreton Lindbaek**

1. Real-time paediatric respiratory tract infection (RTI) community surveillance: A qualitative interview study of clinicians' perspectives on the use, design and potential impact of a planned intervention

Emma Anderson, Isabel Lane, Joanna Kesten, Alastair Hay, Timothy Moss, Christie Cabral

2. Parent and child experiences and views of a paediatric respiratory tract infection (RTI) community surveillance feasibility study: a qualitative study to inform future research

Joanna Kesten, Emma Anderson, Isabel Lane, Suzanne Audrey, Alastair Hay, Christie Cabral

3. Paediatric respiratory tract infection surveillance: a community-based feasibility inception cohort study

Emma Anderson, Suzanne Ingle, Peter Muir, Charles Beck, Adam Finn, John Leeming, Christie Cabral, Alastair Hay

4. Paracetamol (acetaminophen) or non-steroidal anti-inflammatory drugs, alone or combined for pain relief in children with acute otitis media: a Cochrane review

Alies Sjoukes, Roderick P. Venekamp, Alma C. Van de Pol, Alastair D. Hay, Paul Little<sup>4</sup>, Anne G.M. Schilder, Roger A.M.J. Damoiseaux

**15:00-15:20 Tea/Coffee Break**

**15:20-16:20 Session 9: UTI (Simpkins Lee Theatre)**

**Chair: Gail Hayward**

1. Bacteriological findings in uncomplicated urinary tract infections: current status, developing resistance and future situation

Ingvild Vik, Marianne Bollestad, Nils Grude, Morten Lindbæk

2. Protocol for clinical trial: "Randomized clinical trial comparing fosfomycin vs. nitrofurantoin for treatment of uncomplicated lower urinary tract infection in female adults at increased risk of antibiotic-resistant bacterial infection, AIDA".

Anna Kowalczyk, Stephan Harbarth, Angela Huttner, Leonard Leibovici, Johan Mouton, Johan Mouton, Maciek Godycki-Cwirko

3. The development of a "TARGET antibiotics" UTI leaflet to improve communication in GP consultation around the diagnosis and management of urinary symptoms and UTIs with patients. Increasing self-care and reducing antibiotic use, bacteraemia and recurrence

Jessica Thomas, Donna Lecky, Clodna McNulty

4. Effect of a diagnostic algorithm for urinary tract infection in general practice on appropriate use of antibiotics and costs- a cluster randomized trial

Anne Holm, Lars Bjerrum, Gloria Cordoba

**15:20-16:20 Session 10: Point-Of-Care testing (Monson Room)**

**Chair: Jessica Thomas**

1. Should all acutely ill children in primary care be tested with point-of-care CRP: a cluster randomised trial

Jan Verbakel, Marieke Lemiengre, Tine De Burghgraeve, An De Sutter, Bert Aertgeerts, Bethany Shinkins, Rafael Perera, David Mant, Ann Van den Bruel, Frank Buntinx

2. Point-of-care CRP matters: low CRP values substantially improve immediate antibiotic prescribing in acutely ill children in primary care

Marieke Lemiengre, Jan Verbakel, Kaat Van Roy, Tine De Burghgraeve, Bert Aertgeerts, Frans De Baets, Frank Buntinx, An De Sutter

3. Associations between throat swab microbiology and clinical outcome in children presenting to primary care with respiratory tract infection: results from the NIHR 'TARGET' Cohort Study

Hannah V Thornton, Peter S Blair, Niamh M Redmond, Sophie L Turnbull, Hannah Christensen, Tim J Peters, John Leeming, Andrew Lovering, Barry Vipond, Peter Muir, Alastair Hay

4. Supporting antibiotic prescribing decisions for diabetic foot ulcer: an investigation of the diagnostic accuracy of inflammatory biomarkers (INDUCE study)

Nick Francis, John Ingram, Scott Cawley, Elinor Coulman, Kerenza Hood, Clive Gregory, Emma Thomas-Jones, Tim Pickles, Vincent Piguet

## **16:20-17:20 Session 11: Stewardship (Simpkins Lee Theatre)**

**Chair: Gail Hayward**

1. Self-assessment of antimicrobial stewardship in primary care: analysis of self-reported practice using the TARGET Primary Care Self-Assessment Tool

Leah Jones, Rebecca Owens, Meredith Hawking, Michael Moore, Dirk Pilat, Donna Lecky, Clodna McNulty

2. A feasibility cluster randomised controlled trial of a complex intervention to reduce antibiotic prescribing in children presenting to primary care with acute respiratory tract infection and cough; results from the CHICO trial

Niamh M Redmond, Sophie Turnbull, Patricia Lucas, Christie Cabral, Jeremy Horwood, Jenny Ingram, Pdraig Dixon, Sandra Hollinghurst, Tim J Peters, Nick Francis, Alastair D Hay, Peter S Blair

3. Investigating cultural determinants for antibiotics prescribing and consumption in Europe

Siri Jensen, Pia Touboule-Lundgren, Maicek Godycki-Cwirko, Morten Lindbæk

4. Continuing professional development concerning AMR for teachers in Europe

Pia Touboul Lundgren, Rebecca Robbmond

## **16:20-17:20 Session 12: Diagnosis/Prognosis (Monson Room)**

**Chair: Jessica Thomas**

1. Clinical decision rules to diagnose acute rhinosinusitis among adults in primary care

Mark Ebell, Jens Hansen

2. Disease course of lower respiratory tract infection with a bacterial aetiology in primary care

Jolien Teepe, Lidewij Broekhuizen, Katherine Loens, Christine Lammens, Margareta Ieven, Herman Goossens, Paul Little, Chris Butler, Samuel Coenen, Maciek Godycki-Cwirko, Theo Verheij

3. Predicting poor prognosis in adults presenting to primary care with acute cough

Robin Bruyndonckx, Niel Hens, Marc Aerts, Margareta Ieven, Chris C. Butler, Paul Little, Theo Verheij, Herman Goossens, Samuel Coenen

4. Predicting pneumonia in primary care: The 3C cohort study of lower respiratory tract infection in primary care

Michael Moore, Beth Stuart, Paul Little, Mark Lown, Sue Smith, Kyle Knox, Matthew Thompson, David Mant

**17:30 Meet for guided walking tour around Oxford**

**19:00-19:30 Drinks Reception (Talbot Hall)**

**19:30 Dinner (Deneke Dining Hall)**

# Saturday 1<sup>st</sup> October

## 09:00-10:00 **Session 13: Prescribing (Simpkins Lee Theatre)**

**Chair: Theo Verheij**

1. Do general practitioners (GPs) prescribe more anti-bacterials for acute respiratory tract infections (ARTIs) on Fridays than on other days of the week? A retrospective cohort study from Norway

Håkon Lerstad, Svein Gjelstad, Morten Lindbaek

2. Investigating the effect of suboptimal antibiotic prescribing in primary care for patients with a UTI or community-acquired pneumonia on hospital admission due to a bloodstream infection

Hannah Lishman, Ceire Costelloe, Myriam Gharbi, Mariam Molokhia, Alan Johnson, Paul Aylin

3. Adverse events in patients taking macrolide antibiotics for any indication

Malene Plejdrup Hansen, Amanda McCullough, Sarah Thorning, Jeffrey Aronson, Elaine Beller, Paul Glasziou, Tammy Hoffmann, Justin Clark, Chris Del Mar

4. Antibiotics for acute respiratory tract infections: A mixed methods study of patient experiences of non medical prescriber management

Molly Courtenay, Samantha Rowbotham, Rosemary Lim, Rhian Deslandes, Karen Hodson, Katie Maclure, Sarah Peters, Derek Stewart

## 09:00-09:45 **Session 14: Stewardship (Monson Room)**

**Chair: Alike van der Velden**

1. Taking steps: Country Dialogue Meetings to formulate national action plans to stimulate a more prudent use of antibiotics

Dominique Lescure, John Paget, Francois Schellevis, Ann Versporten, Herman Goossens, Liset van Dijk

2. Long-term effect of a practice-based intervention aimed at improving antibiotic prescribing in patients with respiratory tract infections

Carl Llor, Ana Moragas, Beatriz Gonzalez Lopez-Valcarcel, Lars Bjerrum

3. An illness-focussed interactive booklet to optimise management and medication for childhood fever and common infections in out-of-hours primary care: a cluster randomised trial

Eefje G.P.M. de Bont, Geert-Jan Dinant, Gijs Elshout, Gijs van Well, Nick A. Francis, Bjorn Winkens, Jochen W.L. Cals

**10:00-10:50 Session 15: Budding Ideas (Simpkins Lee Theatre)**

**Chairs: Paul Little**

1. Prescribing antibiotics in general practice: The use of microbiological testing and other factors influencing decision-making and prescribing behaviour

Rikke Vognbjerg Sydenham, Malene Plejdrup Hansen, Line Bjørnskov Pedersen, René dePont Christensen, Dorte Ejlertsen

2. The clinical and cost-effectiveness of spironolactone versus lymecycline for moderate or severe persistent acne in adult women: proposal for a multicentre parallel-arm randomised controlled trial

Miriam Santer, Nick Francis, Matthew Ridd, Ingrid Muller, Alison Layton, Beth Stuart, Paul Little

3. Comparison of guidelines on acute sore throat

Jan Matthys

4. Will routinely collected data [RCD] ever surpass self-report? Using routine data for infections research

Fiona Lugg

5. Intervention on promoting prudent antibiotic use in long term care facilities, a cluster-randomised trial, using a stepped wedge model

Nicolay Harbin, Hege Salvesen Blix, Jon Birger Haug, Morten Lindbæk

6. Increase in antibiotic prescriptions in Out of Hours primary care in contrast to in-hours primary care prescriptions: service evaluation in a population of 600,000 patients

Gail Hayward, Rebecca Fisher, Graeme Spence, Daniel Lasserson

7. An audit of the treatment of female urinary tract infections in a General Practice using the electronic health record

Francis Collett-White, Gwyneth Rogers

**10:50-11:00 TRACE Update (Simpkins Lee Theatre)**

**A ten minute TRACE e-learning to disseminate GRACE results to primary care clinicians**

Veronique Nussenblatt, Sibyl Anthierens, Sarah Tonkin-Crine, Jochen Cals, Niels Adriaenssens, Katelijn Nijsmans, Nick Francis, Theo Verheij, Chris Butler, Paul Little, Herman Goossens, Samuel Coenen on behalf of the TRACE project group

**11:00-11:20 Tea/Coffee Break**

**11:20-12:20 Session 16: UTI (Simpkins Lee Theatre)**

**Chair: Ann van den Briel**

1. The Point Of carE testing for urinary Tract Infection in primary Care (POETIC) study (Stage 4): A qualitative study to explore the barriers and benefits of using a POCT to aid the management of uncomplicated UTI in primary care

Emma Thomas-Jones, Lucy Brookes Howell, Khurram Hashmi, Nick Francis, Paul Little, Michael Moore, Carl Llor, Janine Bates, Kerry Hood, Theo Verheij, Chris Butler

2. Use of methenamine as preventive treatment in women with recurrent urinary tract infections. Is it effective?

Linda Rui, Morten Lindbaek, Svein Gjelstad

3. Ibuprofen versus mecillinam for uncomplicated cystitis in women - a double blind randomized trial

Ingvild Vik, Marianne Bollestad, Nils Grude, Anders Bærheim, Sigvard Mölsted, Lars Bjerrum, Morten Lindbæk

4. Clinical and bacteriological effects of per oral pivmecillinam on uncomplicated cystitis caused by ESBL producing *E. coli*: a clinical controlled trial

Marianne Bollestad, Nils Grude, Morten Lindbæk

**11:20-12:20 Session 17: Diagnosis/Prognosis (Monson Room)**

**Chair: Nicolay Harbin**

1. Predicting adverse outcome from lower respiratory tract infection in primary care: The 3C cohort study of LRTI in primary care

Michael Moore, Beth Stuart, Paul Little, Mark Lown, Sue Smith, Kyle Knox, Matthew Thompson, David Mant

2. The impact of an immediate or delayed antibiotic prescription on reconsultations, hospital admission and death for lower respiratory tract infections: 3C cohort study in UK primary care

Paul Little, Beth Stuart, Sue Smith, Matthew Thompson, Kyle Knox, Ann Van Den Briel, Mark Lown, Michael Moore, David Mant

3. Management of sepsis in out-of-hours primary care: a retrospective study of patients admitted to the intensive care unit

Feike Loots, Marleen Smits, Carlijn van Steensel, Rogier Hopstaken, Paul Giesen, Arthur R.H. van Zanten

4. Association between antibiotic class and recovery from symptoms of uncomplicated urinary tract infection (UTI)

Mandy Lau, David Gillespie, Kerenza Hood, Janine Bates, Nick Francis, Nigel Kirby, Paul Little, Carl Llor, Michael Moore, Timothy Pickles, Emma Thomas-Jones, Theo Verheij, Christopher Butler

**12:20-12:30**    **Date and venue of next conference**

**12:30**            **Lunch** (Deneke Dining Hall)

## Delegate List

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