



## SCIENTIFIC COMMITTEE:

**Nick Francis**

**Svein Gjestad**

**Sigurd Høye** (head of the committee)

**Morten Lindbæk**

**Hasse Melbye**

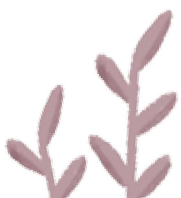
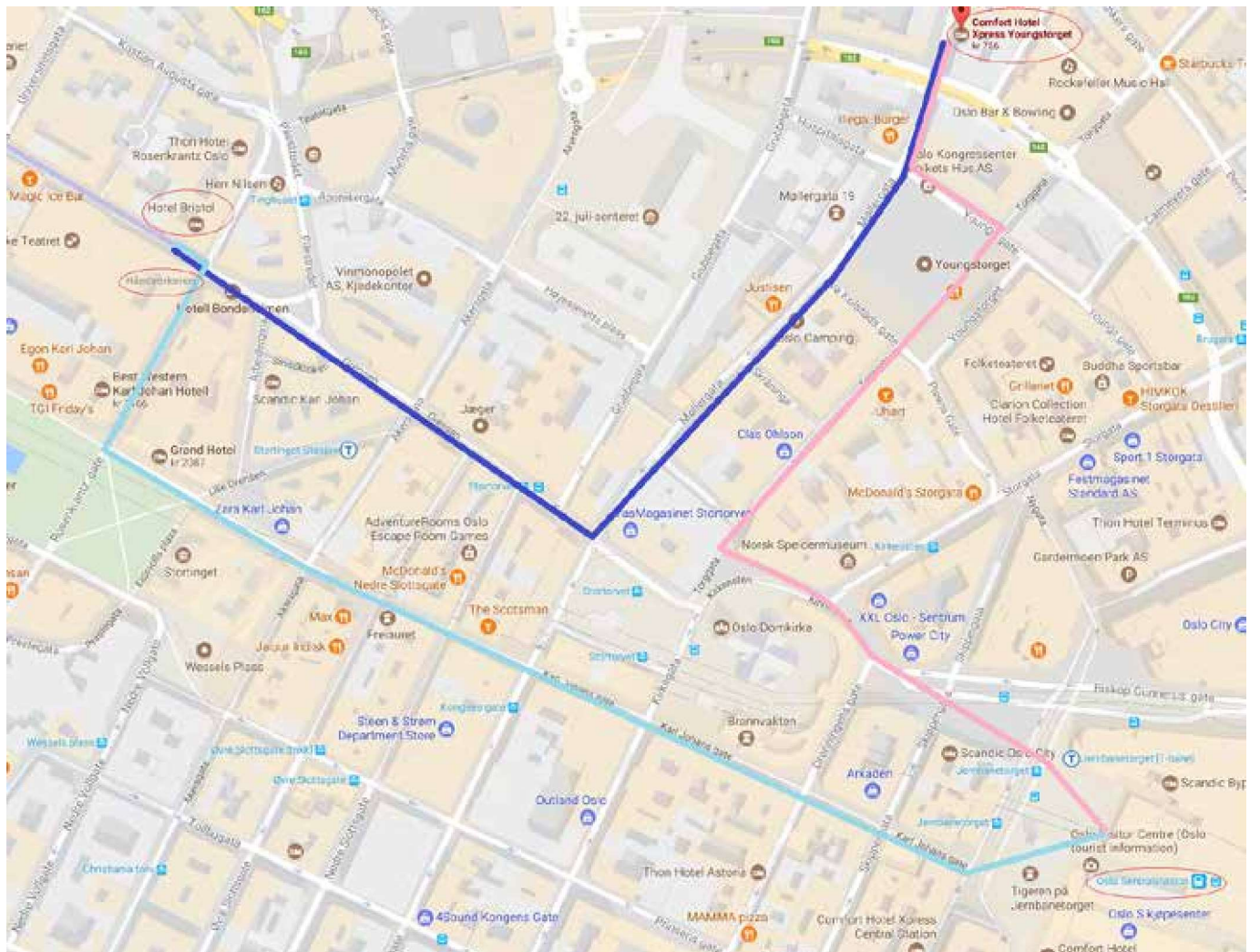
**Theo Verheij**



# CONTENTS

<b>DEAR FRIENDS</b> .....	<b>5</b>
<b>PROGRAM</b> .....	<b>6</b>
<b>DELEGATE LIST</b> .....	<b>12</b>
SESSION 1: <b>STEWARDSHIP</b> .....	<b>16</b>
SESSION 2: <b>DIAGNOSIS</b> .....	<b>23</b>
SESSION 3: <b>METHOD DEVELOPMENT</b> .....	<b>28</b>
SESSION 4A: <b>RTI IN CHILDREN</b> .....	<b>32</b>
SESSION 4B: <b>UTI</b> .....	<b>38</b>
SESSION 5A: <b>ACUTE OTITIS MEDIA</b> .....	<b>44</b>
SESSION 5B: <b>UTI IN ELDERLY</b> .....	<b>49</b>
SESSION 6: <b>OTHER INFECTIONS</b> .....	<b>54</b>
SESSION 7: <b>RTI</b> .....	<b>57</b>
SESSION 8: <b>ANTIBIOTIC USE</b> .....	<b>58</b>
SESSION 9: <b>AMR</b> .....	<b>67</b>
SESSION 10: <b>ANTIBIOTIC USE</b> .....	<b>72</b>





# DEAR FRIENDS

Welcome to Oslo and the 19th GRIN conference, a conference which started in Utrecht in 1998.

We are proud to host this year's conference and feel confident that together we will make the conference a success.

From a number of the participants it is often heard that "GRIN is one of the highlights of the year". There are many reasons for this, but first and foremost it is because the conference delivers some of the best research on our joint topic in the world. Furthermore the meetings have an including atmosphere where all participants regardless of age, experience or title feel welcome. History has already shown that a number of excellent multinational research collaborations have originated from the GRIN family. And last but not least, together we have managed to make GRIN a nice informal social event with a lot of song and laughter throughout the conference. We hope that this will also be the case in Oslo.

In many ways it is quite fitting that this year's conference is in Oslo. Not only is it 13 years since our last conference in 2004, but also because the Norwegian government last year launched a National Strategy against Antibiotic resistance with a target of a 30 % reduction in the use of antibiotics by 2020.

We would like to express our thanks to the scientific committee for their work, The Norwegian Research Council for their financial support and all the other contributors who have made this conference possible.

We wish you all an enjoyable stay in Oslo!

## THE 2017 GRIN COMMITTEE

**Svein Gjelstad**  
**Nicolay Harbin**  
**Sigurd Høye**  
**Marte Ingvaldsen**  
**Siri Jensen**  
**Morten Lindbæk**  
**Anne Britt Mølsæter**  
**Linda Rui**  
**Ingvild Vik**



# FRIDAY 29th SEPTEMBER

**08.30 Registration** (Håndverkeren – 3rd floor Festsalen)

**09.00 Welcome** (Håndverkeren – 3rd floor Festsalen)  
**Professor Morten Lindbæk**, The Antibiotic Centre for Primary Care, UiO  
**Svein Lie**, Norwegian Directorate of Health

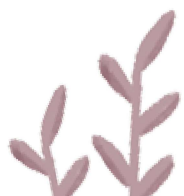
**09.15 Session 1: Stewardship - abstracts page 17-23**  
Chair: **Theo Verheij**

1. Decreasing inappropriate prescription of antibiotics in patients with suspected respiratory tract infections (RTIs) attending primary care in four countries in South-America – cluster randomized controlled trial  
*Urbiztondo Inés<sup>1</sup>, Bjerrum Lars<sup>1</sup>, Caballero Lidia<sup>2</sup>, Von der Heyde Walter<sup>3</sup>, Suarez Miguel Angel<sup>4</sup>, Olinisky Monica<sup>5</sup>, Córdoba Gloria<sup>1</sup>*
2. Routine antibiotic prescription and resistance monitoring in primary care physicians: Outline of a nationwide pragmatic randomized controlled trial  
*Heiner C. Bucher, Lars Hemkens, Ramon Saccilotto, Giusi Moffa, Soheila Aghlamandi, Andreas Kronenberg, Kimberly McCord, Andreas Zeller, Andreas Widmer, Julia Bielicki, Pascal Godet, Roland Rapold, Stefan Küttel, Judith Ott*
3. Better antibiotic prescribing in out-of-hours primary care: study protocol for an action research project  
*Annelies Colliers, Samuel Coenen, Hilde Philips, Roy Remmen, Sibyl Anthierens*
4. Intervention study on promoting prudent antibiotic use in Norwegian long term care facilities, using a stepped wedge model  
*Nicolay Harbin, Morten Lindbæk, Jon Birger Haug, Svein Gjelstad, Hege Salvesen Blix, Kjellaug Enoksen, Per Espen Akselsen, Øyunn Holen, Antibiotic Centre for Primary Care, UiO*
5. Point-of-care C-reactive protein to assist in primary care management of children with suspected non-serious lower respiratory tract infection; a randomized trial  
*Marjolein Schot, Ann van den Bruel, Lidewij Broekhuizen, Jochen Cals, Eveline Noteboom, Walter Balemans, Rogier Hopstaken, Sanne van Delft, Niek de Wit, Theo Verheij*
6. “Antibiotic (against life)” has had its day...time to use more specific terms like an antibacterial, antiviral, antifungal, or anti-inflammatory medicine?  
*Clodna A.M. McNulty, Donna M. Lecky, Daniel Marshall, Chris C. Butler*
7. Exploring attitudes and experiences of community pharmacists and their staff to self-care, antibiotic use and antimicrobial resistance  
*Authors: Leah Jones, Rebecca Owens, Anna Sallis, Diane Ashiru-Oredope, Nick Francis, Chris Butler, Tracey Thornley, Graham Marshall, Clodna A.M. McNulty*

**10.30 Coffee/tea Break**

**10.50 Session 2: Diagnosis - abstracts page 24-27**  
Chair: **Hasse Melbye**

1. External Validation of the Flu Score in a University Health Population  
*Ariella Perry Dale, MPH, Mark H. Ebell MD, MS*
2. Is a first void urine sample as accurate as a midstream urine sample in diagnosing urinary tract infections with point-of-care tests in adult, symptomatic, non-pregnant women in general practice?  
*Pernille Brunsgaard, Lars Bjerrum, Marjukka Mäkelä, Volkert Siersma Anne Holm*
3. Can point-of-care diagnostics in general practice quickly direct antibiotic treatment for patients with suspected urinary tract infection?  
*Anne Holm, Lars Bjerrum, Volkert Siersma, Gloria Cordoba*
4. Impact of using the Cobas Liat Polymerase Chain Reaction Test as a Diagnostic Test for Patients with Suspected Influenza  
*Ariella Perry Dale*



## 11.35 **Session 3: Method Development - abstracts page 28-31**

Chair: **Maciek Godycki-Cwirko**

1. Using Propensity Scores to Estimate Generalizability: an example of the PRIMIT study  
*Beth Stuart, David Gillespie, Lucy Yardley, Paul Little*
2. Common evidence gaps in point-of-care diagnostic test evaluation: a review of horizon scan reports  
*Jan Y Verbakel, Philip J Turner, Matthew J Thompson, Annette Plüddemann, Christopher P Price, Bethany Shinkins, Ann Van den Bruel*
3. Analysing antibiotic use within episodes of respiratory tract infection  
*Margot de Jong, Theo Verheij, Alike van der Velden*
4. Public views on information and consent for pandemic clinical research: an international cross-sectional survey  
*Nina Gobat, Micaela Gal, Christopher C. Butler, Steve A.R. Webb, Nick A. Francis, Jill Mollison, Ly-Mee Yu, Victoria Harris, Angela Watkins, Prasanth Sukumar, Ronald Moore, Kerenza Hood, Alistair Nichol*

## 12.25 **Lunch**

## 13.25 **PARALLEL SESSIONS** (Festsalen and Industrisalén)

### **Session 4 a: RTI in Children (Festsalen) - abstracts page 32-37**

Chair: **Pia Touboul Lundgren**

1. Association between antibiotic exposure and antibiotic “response failure” in preschool children with acute respiratory tract infections  
*Oliver van Hecke, Alice Fuller, Clare Bankhead, Sarah Jenkins-Jones, Nick Francis, Michael Moore, Chris Butler, Kay Wang*
2. Post consultation symptom duration in children with acute cough and respiratory tract infection: prospective cohort study  
*Knut-Arne Wensaas, Dr Niamh Redmond, Ms Sophie Turnbull, Dr Hannah Christensen, Dr Hannah Thornton, Prof Tim Peters, Dr Pete Blair, Dr Jon Heron and Prof Alastair D Hay*
3. Long-term impact of repeated immunization with inactivated influenza vaccine on respiratory illness in children with medical risk conditions  
*Marieke LA de Hoog, Roderick P Venekamp, Roger AMJ Damoiseaux, Anne GM Schilder, Elisabeth AM Sanders, Henriette A Smit, Patricia CJL Bruijning-Verhagen*
4. Optimising decision making on illness absenteeism due to fever and common infections within childcare centres: a cluster randomised controlled trial  
*Kirsten Peetoom, Rik Crutzen, Rachèl Verhoeven, Jolijn Bohnen, Bjorn Winkens, Geert-Jan Dinant, Jochen Cals*
5. Effectiveness of GP online training and an information booklet for parents on antibiotic prescribing for children with RTI in primary care: a cluster randomized controlled trial  
*Anne R.J. Dekker, Th.J.M. Verheij, Dr. L. Broekhuizen, Prof. C. Butler, Dr. J. Cals, Dr. N. Francis, Prof. P. Little, Prof. L. Sanders, Prof L. Yardley, N.P.A. Zuithoff, A. W. van der Velden*
6. Antipyretics prescription in children presenting with fever in primary care in South Eastern France. First data from the Primege PACA database based on GPs electronic health records  
*Virginie Lacroix-Hugues, Delphine Pastacaldi, Pascale Bruno, David Darmon, Pia Touboul Lundgren*

### **Session 4 b: UTI (Industrisalén) - abstracts page 38-43**

Chair: **Akke Vellinga**

1. Lower urinary tract infections in primary care in Skåne, Sweden  
*Helena Kornfält Isberg, Anders Beckman, Katarina Hedin, Eva Melander,*
2. Recurrent urinary tract infections – how often do it occur and who are affected? - Data from a nationwide prescription registry in Norway  
*Lina Janabi, Vidar Hjellvik and Hege Salvesen Blix*



3. Use of methenamine as preventive treatment in women with recurrent urinary tract infections  
*Linda Rui, Morten Lindbæk, Svein Gjelstad*
4. Ibuprofen versus mecillinam for uncomplicated cystitis in women – a double blind randomized trial  
*Ingvild Vik, Marianne Bollestad, Nils Grude, Anders Bærheim, Sigvard Mølstad, Lars Bjerrum, Morten Lindbæk1*
5. Clinical and bacteriological effects of mecillinam treatment on uncomplicated UTI caused by ESBL producing *E. coli*: a prospective, multi-center, controlled trial  
*Marianne Bollestad, Morten Lindbaek, Gunnar Skov Simonsen, Nils Grude and the Norwegian ESBL UTI study group*
6. ATAFUTI: Alternative Treatments of Adult Female Urinary Tract Infection: a double blind, placebo controlled, factorial randomised trial of *Uva ursi* and open pragmatic trial of ibuprofen  
*Michael Moore, Jeanne Trill, Catherine Simpson, Fran Webley, Angeliki Galanopoulou, Mike Radford, Tom Maishman, Louise Stanton, Gareth Griffiths, Merlin Willcox, Andrew Flower, Alastair Hay, Paul Little*

## 14.40 PARALLEL SESSIONS (Festsalen and Industrisalen)

### Session 5 a: Acute otitis media (Festsalen) - abstracts page 44-48

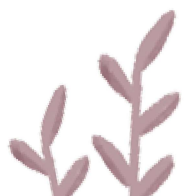
Chair: Svein Gjelstad

1. General practitioners' views and experiences of a primary care-based multifaceted intervention to optimise pain management in children with acute otitis media  
*Van Uum RT, Sjoukes A, de Groot E, Venekamp RP, Schilder AGM, Damoiseaux RAMJ, Anthierens S.*
2. Topical or oral antibiotics for children with acute otitis media presenting with ear discharge ([Pijnlijk LoopOor Therapie Studie], PLOTS): rationale and design of a randomised controlled non-inferiority trial in Dutch primary care  
*Saskia Hullegie MD, Roderick P. Venekamp MD PhD, Thijs M.A. van Dongen, G. Ardine de Wit PhD, Alastair D. Hay MD PhD, Paul Little MD PhD, Michael V Moore MD PhD, Elisabeth A.M. Sanders MD PhD, Debby Bogaert MD PhD, Willem van Schaik PhD, Marc J.M. Bonten MD PhD, Arno W. Hoes MD PhD, Anne G.M. Schilder MD PhD, Roger A.M.J. Damoiseaux MD PhD*
3. Same day topical, delayed oral or same day oral antibiotics for acute otitis media with discharge (the Runny Ear Study, REST): rationale and design of a randomised controlled non-inferiority trial in UK primary care  
*Alastair D Hay MD, Christie Cabral PhD, Anne G.M. Schilder MD PhD, Jeremy Horwood PhD, Vibore Prasad PhD, Scott Wilkes PhD, Sarah Gallagher MSc, Richard Morris PhD, Paul Little MD, Vasa Curcin PhD, Harriet Downing MSc, Brendan Delaney PhD, Andrew Lovering PhD, Sian Noble PhD, Roger A.M.J. Damoiseaux MD PhD, Roderick P. Venekamp MD PhD, Desmond Nunez MD, Nick Francis PhD, Chris Butler PhD; Michael V Moore MD.*
4. Impact of acute otitis media clinical practice guidelines on physicians' prescribing behaviour: a systematic review  
*Yelin Deniz BSc; Rick T. van Uum MD; Marieke L.A. de Hoog PhD; Anne G.M. Schilder MD PhD; Roger A.M.J. Damoiseaux MD PhD; Roderick P. Venekamp MD PhD*
5. Diagnostic methods for acute otitis media in 1 to 12 year old children in primary health care  
*Pär-Daniel Sundvall, MD, PhD, Chrysoula E. Papachristodoulou, MD, Lena Nordeman, PhD*

### Session 5 b: UTI in elderly (Industrisalen) - abstracts page 49-53

Chair: Nick Francis

1. Improving treatment for residents with suspected urinary tract infection in long-term care facilities – Protocol for a cluster randomized controlled trial  
*Sif Helene Arnold, Anne Holm, Jette Nygaard Jensen, Marius Brostrøm Kousgaard and Lars Bjerrum*
2. The effectiveness of interventions to reduce symptomatic urinary tract infections and *E. coli* bacteraemia in hospital and care home residents, a systematic review  
*Leah Jones, Julian Bath, Jane Meyrick, Clodna McNulty*
3. Prophylactic Antimicrobial Use in Long Term Care Facilities in Ireland (HALT 2013 and 2016)  
*Meera Tandan, Rory O' Connor, Karen Burns, Helen Murphy, Sarah Hennessy, Fiona Roche, Sheila Danton, Martin Cormican, Akke Vellinga*





4. Is bacteriuria related to vitamin D deficiency among elderly residents of nursing homes?  
*Rebeka Arnljots, MD, Jürgen Thorn, MD, PhD, Marie Elm, RN, Michael Moore, MD, FRCGP, Pär-Daniel Sundvall, MD, PhD*
5. Long-term antibiotic prescribing and clinical outcomes in older adults with recurrent urinary tract infection: cohort study using linked health data  
*Harry Ahmed, Daniel Farewell, Nick Francis, Shantini Paranjothy, Hywel Jones and Chris Butler*

*End of parallel sessions*

**15.30** **Coffee/tea and a nibble**

**15.50** **Session 6: Other infections - abstracts page 54-56**

Chair: **Chris Butler**

1. Gastroenteritis in Norway 2006-2015: consultations in primary care  
*KE Emberland, K-A Wensaas, S Litleskare, G Rortveit*
2. Recognition of sepsis in primary care: a survey among GPs  
*Feike J Loots, MD, Roeland Arpots, MSc, Rick van den Berg, MSc, Rogier M Hopstaken, PhD, Paul Giesen, PhD, Marleen Smits, PhD*
3. Blood donor *Borrelia burgdorferi* s.l. seroprevalence and history of tick bites in two regions of Norway  
*Nils Grude*

**16.25** **Session 7: RTI - abstracts page 57 -61**

Chair: **Chris Butler**

1. Adventitious lung sounds are not more common during respiratory tract infections (RTI)  
*Hasse Melbye, Cristina Jácome, Juan Carlos Aviles Solis. General Practice Research Unit, Department of Community medicine, UIT The Arctic University of Norway*
2. Effects of using CRP point of care testing to improve targeting of antibiotics for patients with acute exacerbations of COPD: The PACE Study  
*Butler CC, Gillespie D, White P, Bates J, Breen R, Kirby N, Hood K, Cals J, Melbye H, Llor C, Francis NA*
3. The association between the sore throat and group C beta-haemolytic streptococci - A systematic review and meta-analysis  
*Naveen Manchal, Ronny Gunnarsson*
4. Clinical microbiology of patients presenting with an acute exacerbation of chronic obstructive pulmonary disease in UK primary care  
*David Gillespie, Mandy Wootton, Robin Howe, KerENZA Hood, Janine Bates, Nigel Kirby, Rachel Breen, Micaela Gal, Christopher Butler, and Nick Francis on behalf of the PACE study team*
5. Patient expectations in consultations with an RTI in a GP setting in Norway  
*Siri Jensen, Pia Touboul, Maciek Godycki-Cwirko and Morten Lindbæk*

**17.25** **End** (and something to tie you over until dinner)

**18.00** **City walk** – meet in the reception of Hotel Bristol

**19.30** **Drinks** – Hotel Bristol – 2nd floor Mauriske Ballsal

**20.00** **Dinner** – Hotel Bristol – 2nd floor Store Festsal



# SATURDAY 30th SEPTEMBER

Hotel Bristol – 2nd floor Maud salen

**09.00 Key Note** – Dominique Monnet (ECDC)

**09.45 Session 8: Antibiotic use - abstracts page 62-66**

Chair: **Alike van der Velden**

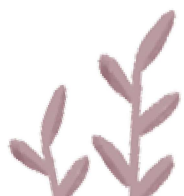
1. Children with respiratory tract infections in Swedish primary care. Prevalence of bacterial resistance and the relation to antibiotic consumption  
*Mia Tyrstrup*
2. Antibiotic prescribing for acute respiratory tract infections in Norwegian primary care out-of-hours service  
*Bent H. Lindberg, Svein Gjelstad, Mats Foshaug, Sigurd Høye*
3. An examination of reported usage, clinical effectiveness and economic burden of over-the-counter medication for sore throat  
*RM Burns, J Wolstenholme, G Hayward on behalf of the TOAST trial team*
4. Patients with respiratory tract infections who do not want antibiotics; direct observational study of primary care in Poland  
*Slawomir Chlabicz, Dorota Rogowska-Szadkowska, Barbara Pytel-Krolczuk, Ludmila Marcinowicz, Anna Justyna Milewska, Julia Strumilo<sup>1</sup>*
5. Antibiotic switch during treatment with antibiotics against respiratory tract infections in ambulatory care in Norway  
*Mari Blandhol, Thekla Tysland, Hege Salvesen Blix, Sigurd Høye*

**10.45 Coffee/tea break**

**11.05 Session 9: AMR - abstracts page 67-71**

Chair: **Morten Lindbæk**

1. Clinical relevance of bacterial resistance in lower respiratory tract infection in primary care  
*J Teepe, BDL Broekhuizen, H Goossens, P Hordijk, K Loens, C Lammens, M Ieven, P Little, CC Butler, S Coenen, M Godycki-Cwirko, B Henriques-Normark, TJM Verheij, on behalf of the GRACE consortium*
2. Urinary tract infections caused by ESBL-producing E.coli are increasing among adult female patients in the primary health care of Uppsala County  
*Heidi Lindbäck, Johan Lindbäck and Åsa Melhus*
3. Increasing nitrofurantoin resistance in Escherichia coli urinary isolates in a country with over-the-counter antibiotic sales  
*Angela Huttner, Caroline Brossier, Elodie von Dach, Anna Kowalczyk, Katarzyna Kosiek, Maciek Godycki-Ćwirko<sup>3,4</sup>, Tanya Babich, Schahaf Schiber, Adi Turjeman, Leonard Leibovici, Ursula Theuretzbacher, Johan Mouton, Stephan Harbarth*
4. Is the reduced primary care use of broad-spectrum antibiotics resulting in reduced antimicrobial resistance: a population-based ecological study  
*Dr Ashley Bryce, Dr Matthew Avison, Professor Margaret May, Professor Alasdair MacGowan, Professor Alastair Hay*
5. Investigating the burden of antibiotic resistance in ethnic minority groups in high-income countries: a systematic review and meta-analysis  
*Hannah Lishman, Paul Aylin, Vivian Alividza, Anuja Chatterjee, Victor Mariano, Enrique Castro-Sanchez, Alan P. Johnson, Samir Jeraj, Ceire Costelloe*



## 12.05 **Session 10: Antibiotic use - abstracts page 72-75**

Chair: **Sigurd Høye**

1. Competent doctors or responsible patients? Antibiotic use and general practitioners' consultation rates  
*Marte Meyer Walle-Hansen, Sigurd Høye*
2. Investigating the trend in primary care antibiotic prescribing for respiratory tract infections  
*Sabine Bou-Antoun, Ceire Costelloe, Benedict WJ Hayhoe, Alan P Johnson, Paul Aylin*
3. Measuring the level of antibiotic prescribing for urinary tract infections in primary care in England which is not adherent with national prescribing guidelines  
*Hannah Lishman, Ceire Costelloe, Myriam Gharbi, Alan P. Johnson, Mariam Molokhia, Paul Aylin*
4. Do GPs prescribe less antibiotics when patients are pregnant?  
*Guro Haugen Fossum, MD, researcher, Svein Gjelstad, MD, PhD, Kari J. Kværner, MD, PhD, professor, Morten*

## 12.50 **Summing up/ Date and venue of next conference**

## 13.00 **Lunch**

BOAT TRIP

## 14.30 **Departure from the lobby of Hotel Bristol and walking to the pier**

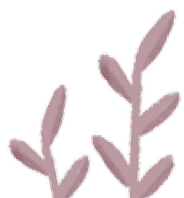
15.00 **Boat trip** – departing from The City Hall pier

19.00 **End of Boat trip** – The City Hall pier



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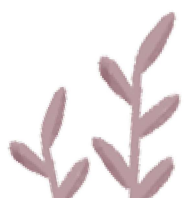
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