



**Dolce Hayes Mansion, San Jose California
Wednesday, April 17 - Sunday, April 21, 2013**

Kjell Nikus, M.D.
Tampere University Hospital
Conference Chair

Paul Kligfield, M.D.
Weill Cornell Medical College
Conference Co-chair

PROGRAM

The International Society for Computerized Electrocardiology

WEDNESDAY, 17 APRIL 2013

1530-1830 Pre-conference Tutorial

***Engineering aspects of automated rhythm analysis during
12-lead electrocardiography***

**Organizers: Paul Kligfield, Weill Cornell Medical College, New York NY
USA**

Eric Helfenbein, Philips Medical Systems, Andover MA USA

Paul Kligfield, Weill Cornell Medical College, New York NY USA

Overview

Robert M. Farrell, GE Healthcare, Wauwatosa WI USA

Basic engineering issues for rhythm detection

Richard Gregg, Philips Medical Systems, Andover MA USA

Sensitivity-specificity tradeoff for arrhythmia detection

Johan de Bie, Mortara Instrument, Milwaukee WI USA

Detection of atrial flutter and tachycardia in a 10-second 12-lead ECG

Shen Luo, Mindray Biomedical, Mahwah NJ USA

*Evaluation of rhythm and pacemaker performance for 12-lead
electrocardiographs*

THURSDAY, 18 APRIL 2013

0800-0815 Welcome & Opening Remarks

Kjell Nikus, Tampere University Hospital, Tampere FINLAND

0815-1020 Session I: Papers from submitted abstracts

Chair: Paul Kligfield, Weill Cornell Medical College, New York NY USA

Co-chair: Kjell Nikus, Tampere University Hospital, Tampere FINLAND

0815-0820 Paul Kligfield, Weill Cornell Medical College, New York NY USA

Overview

0820-0835 Jørgen Kanters, University of Copenhagen, Copenhagen DENMARK

T-wave morphology combination score, heart rate and the QT interval as risk predictors for all-cause-mortality in the general population

0835-0850 Discussion

0850-0905 Reza Firoozabadi, Philips Healthcare, Thousand Oaks CA USA

Predicting defibrillation success in sudden cardiac arrest patients

0905-0920 Discussion

0920-0935 Phyllis Stein, Washington University School of Medicine, St. Louis MO USA

24-hour Holter-derived VPC counts and incident outcomes in older adults: The cardiovascular health study

0935-0950 Discussion

0950-1005 Jean-Philippe Couderc, University of Rochester Medical Center, Rochester NY USA

Combination of T-wave alternans and QT variability predicts ICD discharge in MADIT II patients

1005-1020 Discussion

1020-1050

Break

1050-1225 Session II: J wave syndromes and sudden cardiac death. From cell to bedside

Chair: Charles Antzelevitch, Masonic Medical Research Laboratory, Utica NY USA

Co-chair: Peter Macfarlane, University of Glasgow, Glasgow Scotland UK

1050-1055 Charles Antzelevitch, Masonic Medical Research Laboratory, Utica NY USA

Overview

1055-1110 Peter Macfarlane, University of Glasgow, Glasgow Scotland UK

ECG distinctions, prevalence and nomenclature

1110-1125 Discussion

1125-1140 Charles Antzelevitch, Masonic Medical Research Laboratory, Utica NY USA

Genetics, cellular and ionic mechanisms and approach to therapy

1140-1155 Discussion

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1155-1210 Arnon Adler, Tel Aviv Medical Center, Tel Aviv ISRAEL

Risk stratification of early repolarization

1210-1225 Discussion

1700-1800 Poster Session 1

PRESENTERS:

Salah Al-Zaiti, University at Buffalo, Buffalo NY USA

Predicting mortality using heterogeneity of ventricular repolarization: A meta-analysis. Findings from a global population of 362,816 patients

Deodato Assanelli, University of Brescia, Brescia ITALY

T-wave axis deviation and left ventricular hypertrophy interaction in the MOLI SANI project

Ljuba Bacharova, International Laser Center, Bratislava SLOVAK REPUBLIC

The effect of periinfarction block on the QRS complex and ST segment patterns: A model study

Said Yama Fakhri, University Hospital, Copenhagen DENMARK

Novel electrocardiographic pre-hospital salvage score outperforms reperfusion delay for prediction of left ventricular function in patients with ST elevation myocardial infarction

Arzhang Fallahi, Beth Israel Medical Center, New York NY USA

EKG and angiographic correlation in patients with acute anteroseptal versus extensive anterior STEMI

Konstantin Kamyshev, Russian New University, Taganrog RUSSIA

Fundamental research on the mechanism of cardiovascular system hemodynamics self-regulation. Determination of the norm-pathology boundary for the basic hemodynamic parameters and analysis of the compensation mechanism as a method of revealing the underlying causes of the disease

Michele M Pelter, University of Nevada, Reno Nevada USA

Transient myocardial ischemia among Non-STEMI and unstable angina patients treated with invasive versus conservative treatment

David Pickham, University of California, San Francisco CA USA

Development of ECG abnormalities in the first year after heart transplantation

Dimitrios Poulidakos, St. George's University of London, London UK

T wave morphology descriptors during haemodialysis

Autumn Schumacher, Georgia Regents University, Augusta GA USA

Defibrillation threshold testing does not cause acute electrocardiographic changes in cardiomyopathy patients undergoing insertion of an implantable cardioverter defibrillator

Jose Vicente, US Food and Drug Administration, Silver Spring MD USA

Gender differences in the evolution of spatial QRS-T angle and ventricular gradient with age

Sofieke Wijers, University Med. Center Utrecht, Utrecht THE
NETHERLANDS

Proposing a new ECG parameter for risk stratification in repolarization dependent ventricular arrhythmias: STV_{QT}

1900-2145 SESSION III: Telecardiology

Chair: Roger Abächerli, Schiller AG, Baar, SWITZERLAND

Co-chair: Peter Clemmensen, Rigshospitalet, Copenhagen DENMARK

1900-1905 Roger Abächerli, Schiller AG, Baar, SWITZERLAND

Overview

1905-1920 Lemuel Cunha, Federal University, Belo Horizonte BRAZIL

Main features of a Brazilian large scale telecardiology network

1920-1935 Discussion

1935-1950 Richard Gregg, Philips Healthcare, Andover MA USA

Comparing ST-segment elevation myocardial infarction criteria for left bundle branch block

1950-2005 Discussion

2005-2015

Break

2015-2030 Salah Al-Zaiti, University at Buffalo, Buffalo NY USA

Novel technical solutions for ECG transmission: Clinical perspectives

2030-2145 Discussion

2045-2100 Peter Clemmensen, Rigshospitalet, Copenhagen DENMARK

Prehospital diagnosis and transfers of patients with acute coronary syndrome

2100-2115 Discussion

2130-2230 Poster Session 1 – Continuing Discussions

FRIDAY, 19 APRIL 2013

0830-1130 Session IV: ECG databases/Sudden cardiac death

Chair: Larisa Tereschchenko, Johns Hopkins University, Baltimore
MD USA

Co-chair: Konrad Brockmeier, University of Köln, Köln GERMANY

0830-0835 Larisa Tereschchenko, Johns Hopkins University, Baltimore MD USA

Overview

0835-0850 Raimond Winslow, Johns Hopkins University, Baltimore MD USA

A web-based tool for managing and analyzing ECG data

0850-0905 Discussion

0905-0925 Larisa Tereschchenko, Johns Hopkins University Baltimore MD USA

ECG as a screening tool in the general population

0925-0940 Discussion

0940-0955 Adriaan van Oosterom, Radboud University, Nijmegen THE
NETHERLANDS

Repolarization features as detectable from electrocardiograms and electrograms
0955-1005 Discussion

1005-1030 **Break**

1030-1045 Joseph E. Marine, Johns Hopkins University, Baltimore MD USA
*ECG features suggesting a potentially life-threatening arrhythmia as the cause
for syncope*

1045-1100 Discussion

1100-1115 Mathias Baumert, University of Adelaide, Adelaide AUSTRALIA
*Symbolic analysis of coupling between heart rate, blood pressure and
respiration*

1115-1130 Discussion

1700-1800 Poster Session 2

PRESENTERS:

Roger Abächerli, SCHILLER AG, Baar SWITZERLAND

*Is it possible to reduce the false positive diagnostic statements in young athlete
ECG screening?*

Deodato Assanelli, University of Brescia, Brescia ITALY

*T-wave axis deviation and left ventricular hypertrophy interaction in diabetes
and hypertension (MOLI SANI project)*

Han Chengzong, Philips Healthcare, Andover MA USA

*Comparison of QT heart rate correction methods during drug-induced QT
prolongation in rabbit*

Simon Chien, Philips Healthcare, Andover MA USA

*A software algorithm for detection of biventricular pacemaker pulses in the
surface ECG*

Dirk Feild, Philips Healthcare, Thousand Oaks CA USA

Evaluation of a real-time automated algorithm for ST measurement

Patricia Harris, University of California, San Francisco CA USA

Heart rate turbulence in patients with respiratory failure

Vincent Jacquemet, Hôpital du Sacré-Coeur de Montréal, Montreal
CANADA

*Consistency of QTc measurements in atrial flutter patients before and after
catheter ablation*

David Pickham, University of California, San Francisco CA USA

*Association between endomyocardial tissue biopsies and right ventricular
conduction delays*

Mads Riemann, University of Copenhagen, Copenhagen DENMARK

*Absence of potassium channel interacting protein 2 delays conduction in
the mouse ECG*

Massimo Rivolta, Università degli Studi di Milano, Milan ITALY

Quantification of ventricular repolarization heterogeneity during sotalol

administration using the V-index

John J Wang, Philips Healthcare, Andover MA USA

On transformations for estimating body-surface potential maps from the standard 12-lead electrocardiogram

Sofieke Wijers, University Medical Center Utrecht, Utrecht, THE NETHERLANDS

Acute, short, and long term 'reverse' electrical remodeling after biventricular pacing in patients with cardiac resynchronization therapy

1900-1950 Kenichi Harumi Plenary Address

WOJCIECH ZAREBA

University of Rochester, Rochester NY USA

ECG parameters and cardiac resynchronization therapy

2000-2205 Session V: Jos Willems Young Investigators Competition

Chair: Mary G. Carey, University of Rochester Medical Center, Rochester NY

Co-chair: Shen Luo, MindRay Biomedical, Mahwah NJ USA

2000-2005 Mary G. Carey, University of Rochester Medical Center, Rochester NY USA

Overview

2005-2020 Mikkel Schoos, Rigshospitalet, Copenhagen DENMARK

A novel pre-hospital electrocardiogram score predicts myocardial salvage in patients with ST segment elevation myocardial infarction, evaluated by cardiac magnetic resonance

2020-2035 Discussion

2035-2050 Michael Daly, Royal Victoria Hospital, Belfast Northern Ireland UK

Epicardial potentials derived from the body surface potential map using inverse electrocardiography improve diagnosis of acute myocardial infarction: A prospective study

2050-2105 Discussion

2105-2120 Lars Johannesen, US Food and Drug Administration, Silver Spring MD USA

Going beyond QT: Integrated electrocardiographic and vectorcardiographic analysis of 20 QTc-prolonging drugs

2120-2135 Discussion

2135–2150 Peter van Dam, University of Nijmegen, Nijmegen THE NETHERLANDS

Quantitative spatial cardiac localization of PVCs and pacemakers using the 12 lead ECG

2150–2205 Discussion

SATURDAY, 20 APRIL 2013

0830-1205 Session VI: T-wave variability

Chair: Marek Malik, St. George's University of London, London UK

Co-chair: Robert Lux, University of Utah, Salt Lake City UT USA

0830-0835 Marek Malik, St. George's University of London, London UK

Overview

0835-0850 Richard Verrier, Harvard Medical School, Boston MA USA

Electrophysiology of T-wave alternans: Cellular mechanism and insights derived from large animal models

0850-0905 Discussion

0905-0920 Marek Malik, St. George's University of London, London UK

QT interval and T wave variability during provocative test

0920-0935 Discussion

0935-0950 Joel Xue, GE Healthcare, Wauwatosa WI USA

T wave variation detection, an industrial perspective of research and development

0950-1005 Discussion

1005-1030

BREAK

1030-1045 Derek Exner, University of Calgary, Calgary CANADA

Clinical application of T-wave alternans

1045-1100 Discussion

1100-1115 Georg Schmidt, Technische Universität, München GERMANY

Low frequency oscillations of T-wave vector predict mortality in post-infarction patients

1115-1130 Discussion

1130-1145 David G. Strauss, U.S. Food and Drug Administration, Silver Spring MD USA

Going beyond QT interval in the assessment of electrocardiographic drug effects

1145-1200 Discussion

1615-1630 Yochai Birnbaum, Baylor College of Medicine, Houston TX USA

High risk ECG patterns in ACS – need for guideline revision

1630-1645 Discussion

1650-1900 Session VII: Patient monitoring alarm fatigue: Potential device-based solutions

Chair: Barbara J. Drew, UCSF, San Francisco CA USA

Co-chair: John Wang, Philips Healthcare, Andover MA USA

1650-1655 Barbara J. Drew, UCSF, San Francisco CA USA

Overview

1655-1710 Alex Chen, Mortara Instrument, Milwaukee WI USA

Reduction of false alarms in the detection of lethal arrhythmias in patient monitoring

1710-1725 Discussion

1725-1740 Xiao Hu, UCLA, Los Angeles CA USA

Integrated utilization of monitor alarms to detect patients at risk for sudden cardiac arrest in hospital

1740-1755 Discussion

1755-1800

Break

1800-1815 Mikko Kaski, GE Healthcare, Helsinki FINLAND

Reduction of false and irrelevant ECG alarms in monitoring

1815-1830 Discussion

1830-1845 John Wang, Philips Healthcare, Andover MA USA

Alarms for real-time ECG/arrhythmia monitoring: Review of potential device solutions

1845-1900 Discussion

1915 Banquet

Poster Awards

JWYI Awards

President's Remarks

Conference Chair's Remarks

SUNDAY, 21 April 2013

0730-0900 Closing breakfast