

Diagnostic Imaging Strategies for Patients with Stable Chest Pain and Intermediate Risk of Coronary Artery Disease: Comparative Effectiveness Research of Existing Technologies

<b>Annual Meeting 2017</b>				
<b>Friday 19. February</b>				
01	CHARITE	Germany	Marc	Dewey
01	CHARITE	Germany	Sarah	Feger
01	CHARITE	Germany	Maria	Bosserdt
01	CHARITE	Germany	Melanie	Estrella
01	CHARITE	Germany	Nina	Rieckmann
01	CHARITE	Germany	Georg	Schwanitz
02	MUI	Austria	Guy	Friedrich
02	MUI	Austria	Fabian	Plank
02	MUI	Austria	Christoph	Beyer
04	FN Motol	Czech Republic	Cyril	Stechovsky
04	FN Motol	Czech Republic	Vojtěch	Suchánek
05	REGIONH	Denmark	Klaus	Kofoed
05	REGIONH	Denmark	Kirsten	Thrysoe
05	REGIONH	Denmark	Per	Sigvardsen
05	REGIONH	Denmark	Jane	Poulsen
05	REGIONH	Denmark	Stella	Hansen
05	REGIONH	Denmark	Charlotte	Hansen
06	ALB	Germany	Stephen	Schröder
06	ALB	Germany	Tanja	Drosch
06	ALB	Germany	Thomas	Zelesny
07	ULEI	Germany	Matthias	Gutberlet
08	SE	Hungary	Mihály	Károlyi
08	SE	Hungary	Arpad	Lux
09	SET	United Kingdom	Paul	Carlin
09	SET	United Kingdom	Stephanie	Kelly
10	NUID UCD	Ireland	Mark	Hensey
10	NUID UCD	Ireland	Brian	Meehan
11	UNICA	Italy	Stefano	Cossa
11	UNICA	Italy	Marco	Melis
12	UNIROMA	Italy	Marco	Francone
12	UNIROMA	Italy	Massimo	Mancone
12	UNIROMA	Italy	Gianluca	De Rubeis
13	PSKUS	Latvia	Ligita	Zvaigzne
13	PSKUS	Latvia	Marina	Berzina
14	LSMU	Lithuania	Antanas	Jankauskas
14	LSMU	Lithuania	Gintare	Šakalytė
15	WSS	Poland	Malgorzata	Ilnicka Suckiel
15	WSS	Poland	Magdalena	Szczówka-Wilgat
15	WSS	Poland	Malgorzata	Guziewicz

			Izabella	
16	CVHNG/E	Portugal	Rita	Faria
16	CVHNG/E	Portugal	Monica Andreia	Reis De Carvalho
17	CAM	Romania	Sebastian	Condrea
18	IKVBV	Serbia	Nada	Čemerlić Adjić
18	IKVBV	Serbia	Filip	Adjić
18	IKVBV	Serbia	Ljiljana	Pupić
19	ICS-HUVH	Spain	Filipa	Valente
19	ICS-HUVH	Spain	Hug	Cellar
22	Glasgow	United Kingdom	Colin	Berry
23	AUHT	United Kingdom	Nicky	Lawler
26	Osteba-BIOEF	Spain	Iñaki	Gutiérrez-Ibarluzea
26	Osteba-BIOEF	Spain	Nora	Ibargoyen
28	UKJ	Germany	Peter	Schlattmann
29	TURKU	Finland	Juhani	Knuuti
29	TURKU	Finland	Heli	Louhi
29	TURKU	Finland	Tuija	Vasankari
30	IKARD	Poland	Anna	Oleksiak
31	UMFTGM	Targu-Mures	see partner No. 17	
32	MFUB	Serbia	Radosav	Vidakovic
32	MFUB	Serbia	Nenad	Janeski
33	OSI Bilbao-Basurto	Spain	Iñigo	Lecumberri
33	OSI Bilbao-Basurto	Spain	Ignacio	Díez
34	ECRIN	France	Christine	Kubiak
34	ECRIN	Germany	Anke	Streng-Hesse
35	UCPH	Denmark	Kristian	Schultz-Hansen
-	EAB	United States of America	Harold	Sox
-	EAB	Netherlands	Robert	Klutz
-	EAB	Germany	Hans-Ulrich	Kauczor
-	EAB	United Kingdom	William	Hollingworth

Nr.	Issues	Outcomes	
1.	<b>Status of the DISCHARGE trial</b>		
	Status of DISCHARGE, Marc Dewey	<ul style="list-style-type: none"> <li>• Current status of the trial -&gt; about 1300 patients recruited so far; since not all sites seem to reach the aimed at recruitment number, shifts of patients between the sites will be performed as agreed on by Steering Committee: sites should reach at least 35% of recruitment aim until 30/04/2017, otherwise shifts will be performed</li> <li>• DISCHARGE website and dissemination -&gt; reminder to pursuit dissemination efforts</li> <li>• CRF status and documentation-&gt; eCRF programming is now completed; incomplete eCRF data entry and outstanding queries is a big issue -&gt; has to improve; all sites have to enter AEs, medical students may be hired for helping with data entry</li> <li>• A recent email by an editor of major journal -&gt; offer to publish DISCHARGE primary analysis -&gt; proceeding will be decided by Dissemination and Steering Committee</li> <li>• 10-Steps guide -&gt; reminder to adhere to protocols of 10-step guide and scanner specific protocols</li> <li>• Hands-on course -&gt; for CT image analysis in Berlin; last in December 2016; next in December 4-8, 2017( link: <a href="http://www.ct-kurs.de">www.ct-kurs.de</a>)</li> <li>• Symposium on Quantitative Cardiac Imaging Meeting in Berlin in September 19-20,2017 (Link: <a href="http://www.qcimeeting.com">www.qcimeeting.com</a>)</li> <li>• Patient management -&gt; reminder to adhere to given protocols and SOPs</li> <li>• Follow-ups -&gt; to finalize the trial successfully it is now of utmost importance to retrieve 1YEAR follow-up questionnaires as complete as possible</li> </ul>	
	What does the CAD-Man Study Tell us? Sarah Feger	<ul style="list-style-type: none"> <li>• Main Results:</li> <li>• Less number of ICAs after CT</li> <li>• More CAD if ICA after CT</li> <li>• Faster DISCHARGE after CT</li> <li>• 80% preference CT</li> <li>• Results were published in Dewey et al BMJ 2016; 355 doi: <a href="https://doi.org/10.1136/bmj.i5441">https://doi.org/10.1136/bmj.i5441</a>)</li> </ul>	

	<p>Recruitment and Documentation, Maria Bosserd</p>	<ul style="list-style-type: none"> <li>• Recruitment -&gt; overview about all sites, sites with critically low recruitment indicated; might be affected by recruitment shifts</li> <li>• Screening failures -&gt; all sites should screen all patients, not only for 10-60 % expected pretest probability</li> <li>• Gender -&gt; ratio overall balanced, few sites imbalanced</li> <li>• Completeness of eCRF -&gt; about 89% of forms filled out; reminder to fill out eCRF in timely manner</li> <li>• Query status -&gt; 61% of queries solved; reminder to answer queries in timely manner</li> <li>• Protocol deviations / CT based management -&gt; reminder to adhere to given protocols</li> <li>• AE/ SAE/ MACE -&gt; AEs were documented for 7.2% of the patients so far and SAE for 0.5% and MACE for 0.2%, respectively; reminder to document each AE</li> <li>• Withdrawal -&gt; so far 4% of the patients withdrew from the trial</li> </ul>	
	<p>Dissemination Policies and Activities, Adriane Napp, Melanie Estrella</p>	<ul style="list-style-type: none"> <li>• Overview of dissemination options, examples and activities -&gt; reminder to pursue dissemination efforts, also to enhance recruitment</li> <li>• Announcement of new dissemination rules: <ol style="list-style-type: none"> <li>1. Authorship of publications on pilot study: Who wrote paper/ analyzed data can position 5 authors. The site with best quality of respective data can position 4 authors. The site with second best quality of respective data can position 3 authors. Everybody else from DISCHARGE consortium can position 1-2 authors.</li> <li>2. On authorships in general was decided by Dissemination Committee that there may be exemptions made by predefined rules in cases when required by journal.</li> <li>3. Conflicts of interest (COIs): Co-authors must be named within 4 weeks after initial contact by the Charité dissemination office. Co-authors not giving feedback in time will lose co-authorship. This applies to initially sent COIs as to mandatory updates thereof.</li> </ol> </li> </ul>	

	The Complete eCRF, Georg Schwanitz	<ul style="list-style-type: none"> <li>• Overview of completely programmed electronic Case Report Forms (eCRF) -&gt; focus on novel eCRF forms: stress tests, contrast enhanced chest CT, contrast enhanced chest PET CT, CABG, Clinical chemistry, new AE forms (MICE, AE CABAG, AE ICA and PCI ½, AE ICA and PCI 2/2, AE laboratory test: Clinical Chemistry), Follow-up forms</li> <li>• Help and support on technical aspects: <a href="mailto:dm.kks@Charite.de">dm.kks@Charite.de</a></li> </ul>	
	Remote Monitoring and Weekly Data Extraction, Peter Schlattmann	<ul style="list-style-type: none"> <li>• Idea: Use statistical process control to optimize monitoring of trial/ deviations of protocol, currently monitoring performed with weekly report from KKS mostly manually</li> <li>• Statistical process control can be an additional tool for process control</li> <li>• Since this a data driven approach protocol regulations must be kept in mind</li> </ul>	
<b>2</b>	<b>DISCHARGE Publications</b>		
	The Multicentre DISCHARGE Trial Pilot Study: Image quality and Protocol Adherence Results, Gianluca de Rubeis	<ul style="list-style-type: none"> <li>• Purpose: check protocol adherence, perform error analysis and image quality analysis</li> <li>• Material and Methods: analysis of 226 cases, 150 CT, 76 ICA</li> <li>• Results CT: High quality 24,3%</li> <li>• Limitations: <ul style="list-style-type: none"> <li>• Large differences in terms of generation and rows</li> <li>• Difficult to fit in 10-steps guide into routine protocol</li> <li>• Only subset of the pilot study patients was transferred to core lab for review.</li> </ul> </li> <li>• Take Home Message: <ul style="list-style-type: none"> <li>• Follow the 10 steps guide to perform a Cardiac-CT</li> <li>• Follow general recommendation to perform a ICA</li> <li>• Great improvement in adherence</li> </ul> </li> </ul>	
	European Criteria for Cardiac CT Acquisition, Reconstruction, and Analysis: The 10 Step Guide of the Multicentre DISCHARGE Trial, Sarah Feger	<ul style="list-style-type: none"> <li>• Patient preparation, examination, reading and reporting according to 10-Step Guide</li> <li>• Overview of current image status in DISCHARGE: CT and ICA quality, upload status, percentage of NDX/ Site</li> </ul>	

	<p>Health-related Quality of Life in Patients with Suspected Coronary Artery Disease Referred to Invasive Angiography or Computed Tomography: Multicentre Analysis, Nina Rieckmann</p>	<ul style="list-style-type: none"> <li>• Aims: <ul style="list-style-type: none"> <li>• analyse convergent validity of several measures of health-related quality of life (HRQoL)</li> <li>• analyse relationship between HRQoL and chest pain (according to Angina Classification and tRose Angina questionnaire)</li> <li>• compare HRQoL in patients with pain of cardiac origin (positive for coronary artery disease, CAD) with HRQoL in patients with pain of non-cardiac origin (negative for CAD)</li> </ul> </li> <li>• Conclusions: <ul style="list-style-type: none"> <li>• Few missing data</li> <li>• Most data correctly transferred</li> <li>• Significant associations between Angina Classification and HRQoL -&gt; Promising Results</li> </ul> </li> </ul> <p>Please verify that questionnaires were completed before procedure</p>	
	<p>Geographical Variation in Prevalence of Obstructive Coronary Artery Disease and Accuracy of Clinical Pretest Probability Estimation: A Multicentre Analysis, Sarah Feger</p>	<ul style="list-style-type: none"> <li>• Question: How accurate is pretest probability calculation for stable chest pain patients with suspected coronary artery disease (according to Diamonds &amp; Forrester)?</li> <li>• Conclusions: <ul style="list-style-type: none"> <li>• Pretest calculation overestimates prevalence</li> <li>• High variance in Europe</li> <li>• More accurate models?</li> </ul> </li> </ul>	
	<p>Applying GRADE Method to Solve the Issue of Composite Endpoints for Stable Angina, Iñaki Gutiérrez-Ibarluzea</p>	<ul style="list-style-type: none"> <li>• Objective: <ul style="list-style-type: none"> <li>• perform a review of existing definitions on MACE</li> <li>• agree a standardized and common definition that could be useful for those with the same PICO question</li> </ul> </li> <li>• Conclusions: <ul style="list-style-type: none"> <li>• MACE is used as primary or secondary outcome without explanation</li> <li>• Most retrieved references included MACE as outcome, some did not define which individual outcomes were encompassed</li> <li>• most common combinations of individual endpoints was non-fatal myocardial infarction and revascularization</li> </ul> </li> </ul>	

		<ul style="list-style-type: none"> <li>• important to establish follow-up periods that lead to achieve these considered important outcomes.</li> <li>• There is no common MACE definition; this could respond to the differences in the research questions of individual studies.</li> <li>• Possible solution for solution could be GRADE framework and selection of outcome of interest</li> <li>• Inaki and Marc will develop survey for patients about utility of certain MACE definitions to be included in paper together with other DISCHARGE sites interested and to be included in the Systematic Review and MACE definition paper which should be send to Lancet</li> </ul>	
	Update Finances, Adriane Napp	<ul style="list-style-type: none"> <li>• To get PRCT back on Schedule: <ul style="list-style-type: none"> <li>• Recruitment will be finished 30/09/2018</li> <li>• patient shifts will be performed from clinical sites behind schedule to clinical sites almost done</li> </ul> </li> <li>• Periodic and Financial Report <ul style="list-style-type: none"> <li>• 3. report for period until 31.07.2017; submission due 23.09.2017</li> <li>• Requirements are progress per work package, financial report, form C, ECAS entries for partners</li> </ul> </li> <li>• Explanation Costs in DISCHARGE: <ul style="list-style-type: none"> <li>• Eligible costs: personnel (with DISCHARGE work contract), consumables for CT/ICA examination, travel</li> <li>• Non-Eligible costs: pilot study, equipment, travel (daily allowance, taxi, car), training (certificates, workshops, fees)</li> </ul> </li> <li>• Contact Adriane Napp with skype name: Adriane Napp for solving any remaing issues about hiring staff on the budget of DISCHARGE</li> </ul>	

	<p>Comments and Suggestions from the External Advisory Board</p>	<p>Harold Sox:</p> <ul style="list-style-type: none"> <li>• Outcomes are influenced by high recruiters</li> <li>• Overrepresentation?</li> <li>• Standardize the FU after CTA too much?</li> <li>• Less standardisation after ICA?</li> <li>• Improved outcomes after CTA by this?</li> <li>• Unblinded– subj. endpoints are biased</li> <li>• Describe for each site where patient come from – for this José and Marc will further develop the existing survey from Barcelona about ‘where the patients come from’ at all sites to be able to add this to the main paper and or separate paper about this.</li> </ul> <p>William Hollingworth:</p> <ul style="list-style-type: none"> <li>• There is a risk of talking too much about CT-based management</li> <li>• Measure downstream confounders?</li> <li>• You cannot blind patients</li> <li>• CEA suggestions</li> </ul> <p>Robert Klautz:</p> <ul style="list-style-type: none"> <li>• MACE definition could be the ,teaser’ paper</li> <li>• Pain is subjective and influenced by unblinding</li> <li>• High recruiters: different prevalence?</li> <li>• No reaction to queries is an issue</li> </ul>	
		<p>Hans-Ulrich Kauczor:</p> <ul style="list-style-type: none"> <li>• Track per-site recruitment <ul style="list-style-type: none"> <li>• React if recruitment is slowing down</li> </ul> </li> <li>• 30 patients/wk are needed to meet the recruitment target</li> <li>• We need to better measure quality of imaging, patient management and data documentation – and react if quality is poor</li> </ul>	
	<p>Announcement next meeting and place, Marc Dewey</p>	<p>Next annual meeting will be in Berlin 15./16. February 2018.</p>	
	<p>Farewell, Marc Dewey</p>		
<p><b>All presentations and documents are to be found on:</b>  <a href="https://www.dischargetrial.eu/members-area/">https://www.dischargetrial.eu/members-area/</a></p>			