EURHOBOP project Minutes

Teleconference 21-11-2011

Minutes

Participants:

Ana Azevedo (FMUP)
Antti Malmivaara (THL)
Dimitrios Farmakis (HCS-ATTIKON)
Isaac Subirana (IMAS-IMIM)
Jaume Marrugat (IMAS-IMIM)
Jean Ferrières (AEPMCV)
Joan Vila (IMAS-IMIM)
María Grau (IMAS-IMIM)
Marina Torre (ISS)
Mirko di Martino (DEASL)
Roberto Elosua (IMAS-IMIM)
Yolanda Ferrer (IMAS-IMIM)

Apologize for their absence:
Inge Kirschberger (HMGU)
Pascal Garel (HOPE)

1) Completion of the minutes of the Porto Scientific Meeting.

We need to complete the minutes from the Porto Meeting. JM ask partners to go through them and check the parts that concern their participation in the Porto Meeting to check whether the basic ideas were transcribed appropriately (minutes in annex), and send the corresponding contributions as necessary and possible amendments to YF during this week.

2) Organization of a visit to Dr. Tavazzi and agenda.

MT will contact Dr Tavazzi (this is an approach to the ESC agreed during the meeting to try to get more databases of patients to validate our functions). JM will send a list of available days next January/February.
JF have just received a request from the ESC to complete a form to see if they have data on acute coronary syndrome. AEPMCV has filled in this form according with data from the MONICA study without mentioning the EURHOBOP Study.
JM had received some requests to declare existing past registries but not current registries. They are checking what is going in Europe at the moment.
Maybe Dr. Tavazzi will be able to tell us what is all about.

3) Investigators and data extractor list on the web site.
Partners are requested to look at their list of investigators and data extractors in the website and send changes to MT and YF

4) Organization of population ACS data gathering from the local registries.
We decided in the meeting in Porto to initiate contacts local societies to know if there are other efforts being done on this subject. Partners are requested to contact their national societies and to inform during the first quarter of next year.

5) "non stated" interpretation in participant hospitals
Partners are requested to send an email confirming that the interpretation of "non stated" stated in the Minutes of the Porto Meeting fit their local data collection.

AM is waiting for an answer on this from the Finnish cardiologists.

6) Data Base setup for deliverable D7 sex inequalities.
JM shows the updated recruitment status. We have already 14.413 participants recruited, distributed as follows:

1: Finland	2001 (13.9%)
2: France	2390 (16.6%)
3: Germany	2005 (13.9%)
4: Greece	1479 (10.3%)
5: Italy	2000 (13.9%)
6: Portugal	2536 (17.6%)
7: Spain	2002 (13.9%)

Most of them (13.005 patients) have been already checked and queries have been responded. JV will send the clean data base of these patients to Mirko di Martino before the end of the week, so that the deliverable can start to be prepared. We will need a first draft of the DL7 for mid December from DEASL.

7) Local contributions to the Dissemination Plan (DP)
Partners are requested to send Marina Torre their contributions by the end of November. We can publish a first version of the DP and update it according to new proposals. M Torre suggests to look at the EUPHORIC DP (she will send partners an email with this document, so that they can get ideas, and also with the EURHOBOP DP draft).
They are also requested to put a link to the EURHOBOP website in the institutions website.

8) Overview of the list of scientific papers

The list of possible scientific papers and their leaders is presented again.

Benchmarking and public Health:

TITLE	WP	Main contributor	Assoc. contributors
EURHOBOP Protocol	WP2	ISS	IMIM PSMAR
Validation of the set of functions	WP4	IMIM PSMAR	ALL
Presence of severity variables in Letter of Discharge	WP5	AEPMCV	THL
Cost analysis	WP7	THL	

Clinical

TITLE	WP	Main contributor	Assoc. contributors
Sex inequalities	WP6	DEASL	
Role of age in utility of certain clinical procedures (to be done by merging EURHOBOP database with EUPHORIC one)	-	IMIM PSMAR	AEPMCV, ISS
Systolic dysfunction and mortality in different countries, and aggressiveness of treatments	-	FMUP	
All local data papers	-	Each Assoc Coll Partner on its own.	

MT notes that, about the protocol there are some journals inviting authors to publish their study protocols. She will send the list of these journals to JM.
JM suggests that the priority order for papers shall be:
1-Protocol,
2-Sex inequalities,
3-Role of age

9) All other business and next teleconference date before Christmas.

AM: they need the descriptive data on hospital characteristics as they have a seminar in Helsinki by next week. ISubirana will send this information to AM.

MT has already published the date of the final meeting in the website. She asks JM to send some more information on this meeting as soon as possible. The meeting will be open to any person interested. JM will think of it during the next weeks. YF will send the last minutes approved to MT to be uploaded in the website.

Next Teleconference: December 20th - 13:00

EURHOBOP project

Second Annual Meeting - Porto 10-11/October/2011

Minutes (draft)

Participants:

Ana Azevedo (FMUP)
Antti Malmivaara (THL)
Carla Araújo (FMUP)
Danilo Fusco (DEASL)
Dimitrios Farmakis (HCS-ATTIKON)
Inge Kirchberger (HMGU)
Isaac Subirana (IMAS-IMIM)
Jaume Marrugat (IMAS-IMIM)
Jean Ferrières (AEPMCV)
Joan Vila (IMAS-IMIM)
Marina Torre (ISS)
Marta Pereira (FMUP)
Pascal Garel (HOPE)
Ricardo Soares (FMUP)
Roberto Elosua (IMAS –IMIM)
Unto Häkkinen (THL)
Vanina Bongard (AEPMCV)
Yolanda Ferrer (IMAS-IMIM)

Apologize for absence:
Georgios Margetidis (EAHC)

1) Welcome by host, EURHOBOP coordinator

J Marrugat thanks Ana Azevedo and her team for hosting the EURHOBOP Second Annual Meeting and apologizes for the absence of Mr Margetidis who has not been able to attend this meeting.

A Azevedo introduces the agenda of activities and provides practical directions.

The scientific agenda for the meeting is presented, as well as the EURHOBOP calendar in which all the performed tasks are marked and have been delivered on due time, and J Marrugat mentions the remaining tasks during this last year of the project.

J Marrugat comments on the ESAB report recommendations, point by point. The result of this discussion will be added to the 2nd EURHOBOP Annual Interim Report (DL6).

0. "…. It will be highly recommended that an "action plan" will be ready to explain very well the meaning of the results and, if possible, the quality updating of the hospitals …"
   We are responding to this comment with our new Deliverable 15: Dissemination Plan. A draft for this dissemination plan has been already prepared and will be included in the 2nd Annual Interim Report (DL6)

Recommendations for the future:

1. When disseminated the tool should have a proper explanation about the real meaning of its results remembering that this is a tool focused on in-hospital care and it is not related to the impact of an ACS population intervention program.
   We will take this into account in Deliverable 15.
2. It could be of interest to try to get information about the existence of special intervention programs in the hospital area. This can be very relevant for pre-hospital care and can have impact in determining what and how many patients reach the hospital alive.
   We agree that this point may be important but unfeasible at this stage of the project.
3. It could be also interesting to get information about population density or distance to reference hospitals for each one of the centers.
   We cannot address this recommendation because we do not have patient residence.
4. Related to the study of the cost of ACS care it could be also important to get information about the cost of purchasing of each country otherwise comparison will be very difficult.
   U Häkkinen mentions that they are taking this into account in the data collection from several Europe countries.
5. Consider the possibility of introducing a variable related to clinical records quality. Especially for the study of co-morbidities it seems to be highly dependent on the quality of clinical records.
   This can be done already with the existing database, using the key variables considering the missing and "non stated".
6. It will be good to differentiate hospitals according to the coverage of all the process of ACS care ...
   We can stratify our functions by level of care or take into account the level of care within the function. We will explore this in the analyses phase of EURHOBOP.
7. It will be interesting to develop activities to increase enrolment of hospitals in various regions of different characteristics (consider the possibility to study some social condition indicators like educational level or unemployment rate.
   It should be done at individual level. We cannot do it this way because we did not collect these data; we will drop this point. And these data are not available at individual level.
8. To explain better the sources of patients included in the project (200 consecutive) and to which kind of them the project will apply.
   The only way is to ask all Principal Investigators in all countries to find out in which department where admitted the 200 consecutive patients included.
9. Provide a gap analysis of core European data sets to be provided by hospitals.
   We agree on preparing a comparative analysis by participant country to address this point.

2) Statistical party meeting: Model selection and model adjustment discussion, by WP (WP4, WP5, WP6, WP7)

Joan/Isaac

3) Partner activity update:

PSMAR-Coordination. Y Ferrer

Y Ferrer summarizes the activities carried out by the Coordination during this second year of the project, which started with the 1st EURHOBOP Annual Meeting in Athens:

- First interim financial and scientific reports coordination
- Preparation and signature of the second contract amendment
- Recruitment status every Friday
- Data Extractor on-line support
- External Scientific Advisory Board meeting in the Helmholtz Zentrum München Munich, 6th June 2011
- Web-site design support
- Steering Committee WEBEX teleconferences
- On-site visits by the Coordinator with structured questionnaire to partner
- Minutes and follow-up drafting
- Subcontract Legal Advisors: second report on IPR
- Certificates for all Investigators of every Associated Collaborating Partner.
- Second Annual Meeting organization with Anna Azevedo's team at the Facultade de Medicina da Universidade do Porto
- Second interim financial and scientific reports coordination
- General Coordination and Contacts with EAHC

ISS. Marina Torre

M Torre presents the activities performed during this second year, which relate to the following points:

- Continuous updating of the website to support the project in the two activities:
  - Validation of the mathematical function developed under EUPHORIC,
  - Dissemination of the results
- Preparing the dissemination plan
- Identifying the stakeholders that will receive the final products of the project

The process of registering Affiliated Collaborating Partners, and the way to upload databases for these partners was developed in the EURHOBOP website. The uploading procedure was developed on the IMIM server.

Note: The instruction to upload a file is in Catalan and should be translated into English.

M Torre invites partners to send her news to be published in the News area of the website

It is agreed that the Deliverable 15 Dissemination plan is being discussed later (see specific §)

M Torre informs all the Partners that preliminary contacts with Susanne Løgstrup, Director of the European Heart Network, will be started just after the Oporto second annual meeting together with J Marrugat, in order to define a specific cooperation for the dissemination of the EURHOBOP results in their network.

Moreover she communicates that she was contacted by Prof. Luigi Tavazzi, the Chairman of the Oversight Committee of the EURObservational and Research Programme (EORP) of the European Society of Cardiology (ESC) since 2009 and of the Working Group on "Myocardial and Pericardial Diseases" (ESC) since 2008, and she described him the objectives of EURHOBOP and its connections with EUPHORIC.

The EORP Dept was contacted by Pascal Garel. Aim of the EORP is to act as coordinator of specific surveys and registries set up to provide a better understanding of medical practice based on observational data collected with more robust methodological procedures (http://www.escardio.org/guidelines-surveys/eorp/Pages/welcome.aspx).

Hospitals are selected on the basis of their representativity of the selected area.
Prof. Tavazzi visited the EURHOBOP website and told that he was very interested in participating in Eurhobop both by supporting and promoting the participation of the European hospitals involved in the ESC surveys/registries and by sharing the data collected by the ESC registries/surveys.

J Marrugat proposes to visit Prof. Tavazzi. The meeting will be organized by M Torre on the basis of the dates suggested by J Marrugat.

HMGU. I Kirchberger

I Kirchberger presents the tasks carried out by her team:

- Monitoring of adherence to timetable, tasks and deliverables of the EURHOBOP project during this second period.
- Organization of the External evaluation by a Scientific Advisory Board together with the EURHOBOP Coordination.

And the forthcoming tasks for partner HMGU:

- Monitoring of the benchmarking functions development.

HCS-ATTIKON. D Farmakis

The tasks developed by partner HCS-ATTIKON have been related to Work Package 4 (Benchmarking Function Development), and to the organization of the
Athens meeting – October 2011
D Farmakis presents the location and type of the hospitals recruiting in Greece.
Four hospitals have concluded the recruitment, four others are expected to finish within 4-6 weeks, and one is still pending and expected to start within a week.
The main issues have been:

- Local data extractors (they have needed one per site)
- Site withdrawal and replacement by another
- Central administrative issues (none of the participant is a HCS employee)
- Local licensing procedures
- Local software incompatibility
- Other local issues

To solve these problems the following situations have helped a lot:

- Close communication with the Coordinator
- Frequent communication among the partners
- Prompt response of the Coordinator and the rest of the team to every request/question/ problem

FMUP. A Azevedo

A Azevedo presents the main issues for FMUP during the period.
They made all efforts to get all the patients recruited from each hospital on time for this 2nd meeting.
Some hospital make it difficult for data extractors to access the files of deaths.
They still have to recruit one hospital.
A Azevedo states that they have just two data extractors and this fact makes FMUP confident about the homogeneity of data.
Concerning the cost questionnaire, they have not sent it yet, because they can just know now costs for materials.

PSMAR. R Elosua

Concerning the WP4 recruitment, se have achieved almost all patients, in all hospitals for every participating country in 17 months.
R Elosua shows the first recruitment figure published in the website in September 2010 and the most recent one to show the progress in all countries, and for each hospital.
Regarding the quality control of data, a first round of queries has been sent and a second round is under way, not only related to patient data, but also to characteristics of associated collaborating hospitals.
PSMAR would like to have the final data base by the end of December 2011. Then in January-February 2012 they will proceed with the statistical analyses.
Certificates of participation in the EURHOBOP project have been provided to all partners, so that they can forward them to all investigators in every Hospital in their country.

YFerrer will send a new list of Principal Investigators and Data Extractors accordingly to changes made to prepare the certificates to the website responsibles.

AEPMCV. J Ferrières

Partner AEPMCV has already achieved the 2000 patients required. Some hospitals have recruited a lot more than expected, but those who have not reached 200 patients will continue recruiting till they do.
They have a 4% rate of deaths, which is very low, but in accordance with the figures of other studies. The problem is with “non stated” responses to many variables in the area.
J Marrugat suggests making a sensitivity analysis.

DEASL. D Fusco

D Fusco presents the activities of DEASL during the second year of EURHOBOP:
- Meetings: Participation in Webex conferences, participation and organization of a statistical meeting in Rome (20 June 2011)
- WP6 Data

Data extraction for the 10 Italian hospitals
- Preliminary analysis for WP6

Statistical methods. Risk adjustement, multilevel analysis and fractional polynomials

Analysis of preliminary data by gender for in-hospital mortality

THL. U Häkkinen
The recruitment has been completed in Finland.
For the cost analysis THL is waiting for completion of the analyses on how the risk assessment will be made, as they will comply with this in their statistical adjustments.

HOPE. P Garel
P Garel presents the progress, evaluation and further steps of WP8 during the period.

The overall objective of this work package is to determine whether the distribution of expected outcomes fits the observed distribution. To do so a large number of hospitals is needed.

– The first year was devoted to three actions:
    - to identify the ways to reach hospitals;
    - to prepare specific arguments to convince them to contribute;
    - to build the link on the website to which hospitals will provide their information.
– The second year was built on the results of the first year.
    - EURHOBOP web-site was accessible at the end of 2010 and a general campaign was developed in order to reach hospitals;
    - On the basis of the specific message designed in the first year, the first step was for HOPE to disseminate widely the information on this component of the project.
    - The second step was to develop country contacts in individual member states.

The result of the contacts is the following:

- Data will be obtained from: Bulgaria, Denmark, Estonia, France, Hungary, Slovakia, Slovenia, Sweden
- Uncertain : Latvia, Lithuania, Czech
- Failed : Germany, UK, The Netherlands. Refused: Denmark

When analyzing the efforts HOPE reports difficulties to get individual hospitals, uncertainty of the availability of information requested and existence of regional/national database.
P Garel suggests contacting with the European Society on cardiology and to approach individual hospitals to contribute with their databases.

As further steps, there is:

- To follow with the following contacts in process: Bulgaria, Estonia, Hungary, France, Slovenia, Slovakia, and Sweden.
- Obtain the support of ESC.
- Reactivate uncertain or failed countries. (e.g. Denmark)
- Getting the opinion of partners on how to proceed with the six remaining countries of the project.

J Marrugat confirms that obtaining the support of ESC is crucial. The Spanish Society of Cardiology has a registry based on a voluntary basis. J Marrugat will contact them to see if they wish to participate.
It is a shift in our strategy from the point of view of consecutiveness of patients if we go after already collected database since these do not ensure consecutiveness or representativeness of patients. Representativeness was not guaranteed with individual hospital participation in any case. The counterpart is that we can reach a very big number of patients. We should explore this option. P Garel will inform us on his prospects.

Some last minute decisions:

- to upload approved deliverables on the EURHOBOP website (**PSMAR-ISS**)
- to send to Y Ferrer and Marina Torre the characteristics of hospital 5 in Finland – Hospital Form (**THL**)
- add a new DL15: "Dissemination Plan" to the list of deliverables in the calendar.(**ISS**)

4) Work package leaders presentation of the evolution of their WP in the context of the planned deliverable calendar:

➢ D7 [WP6-DEASL] December 2011 and statistical analyses planning. D Fusco

The main objective for WP6 is to compare intra-hospital mortality by gender in patients with *acute myocardial infarction*.
The specific objectives are

- to estimate the overall gender effect;
- to estimate the gender effect variance among hospitals and among countries;
- to evaluate the role of some potential effect-modifiers measured on a multi level analysis: patient and hospital (no power to measure at country level).

Hint: More than 50% of enrolled patients present missing data on variable "time to pci", which precludes a proper analysis of this information.

Therefore a three-level hierarchical structure was modelled using a random intercept model.

With respect to the risk of dying after AMI, most of the variability is placed at the patient level (91%). Approximately 4% and 5% of the total variability is located at the hospital and country level, respectively.

Females present a slightly higher risk of dying after AMI: differences are not statistically significant.

Adjustment for comorbidities reduces the differences between females and males, which supports the findings of some studies which concluded that higher mortality among women might be partially explained by different age and risk factors distribution.

Hospital and country characteristics seem to have no effect on the risk of dying after AMI.

The effect of gender on the risk of dying after AMI is homogenous among hospitals and among countries: the slope variances are not statistically significant.

None of the analyzed interaction terms was statistically significant: hospital characteristics do not modify the effect of gender on the risk of dying after AMI.

THINGS TO DO:

Use of fractional polynomials for a better continuous confounders adjustment (i.e.: age or blood pressure).
Some critical issues:

Missingness mechanisms: data may be missing "not at random". → sensitivity analysis is proposed.
How many units there are at the third (country) level? It is possible to consider a two-level model, specifying that the highest level units (hospitals) are nested in an "external" higher level clusters (countries). *Robust (Huber-White) standard errors* can be calculated in order to take this clustering into account.

Possibly it would be better to concentrate on STEACS.

Some issues that may need to be addressed:

a. List patients discharged to another hospital in all countries. This is not a big number of patients.
b. PCI time: 50% have the data. It is a big database. The sensitivity analysis may help to decide whether this variable is worth it to analyze. In Italy the most important effect is in PCI not in mortality. There is no difference for 6 or 12 hours. Just for 24 hours. We agree to explore this issue when the database is ready. We need to decide which variables are to be included as possible confounders. E.g., cardiogenic shock (CS) and acute pulmonary edema (APE) may be considered mechanisms of death and may not, in consequence, fulfill the requirements for confounding factors.
c. CS and APE are to be considered, regardless if it is on admission or during hospitalization.
d. R Elosua suggests to try models without and with adjustment for cardiogenic shock and APE (two models).
e. J Marrugat says that the objective is to determine whether under similar conditions, women have the same chance of getting the same treatment as men.

➢ D8 [WP5-AEPMCV] January 2012 + statistical analyses planning. V Bongard

The main objective of WP5 is to seek, in various hospitals and various countries, the availability of prognostic markers in administrative data, in order to assess whether their use in predictive models for benchmarking is feasible.
The interim objective is to compare the performance of a "restricted" versus an "extensive" risk prediction model
And the final objective is to develop convenient tools for dissemination of the risk prediction models, such as nomograms or hand-held devices, for benchmarking purpose

The methodology used has been:
Estimation of the proportion of "data not stated" for various severity markers.
- According to the main source of data
    1. From Discharge Letter (DL) exclusively
    2. From Computer Medical Records (CMR) exclusively
    3. From DL + CMR
    4. From other computer records (ER or laboratory)
    5. From paper medical files ± any other source
- By country, type of hospital (university or non university), type of ACS on admission, discharge diagnosis, and vital status at discharge.

V Bongard presents the intermediate analysis on main data source of 6336 records analyzed and by countries: there are no missing data for age and gender whatever the data source.
The planned sensitivity analyses are:

- According to the country
- According to the type of hospital
- According to the admission diagnosis
- According to the discharge diagnosis
- According to the discharge vital status

The results on preliminary analysis are the following:

- Missing data on main severity markers are common
- There are differences between data sources and potentially between countries
- Differentiating the origin of each variable from the origin of the leaflet is not possible, thus leading to imprecision in the assessment of the variables' origin
- Should we consider "not stated data" as situations that did not occur for a selected list of variables?
    - Previous history of renal failure
    - Acute pulmonary oedema or cardiogenic shock on admission
    - Procedures used during hospitalization
    - Acute pulmonary oedema, cardiogenic shock, cardiac arrest, acute renal failure, reinfarction, stroke, or intracranial bleeding during hospitalization
- The restricted model could consider:
    - Country
    - University / non university hospital
    - Age
    - Gender
    - Type of ACS
    - ± ACS location, initial SBP, creatinine, LVEF category and troponin peak (below or above normal)
- The extensive model should include all severity markers significantly associated with prognosis.

As a conclusion: Missing data on main severity markers are common and it is highly probable that for these severity variables, sensitivity analyses may be mandatory.

➢ D10 [WP7-THL] April 2012 and statistical analyses planning. A Malmiväara /U. Häkkinen (please check).

The general objective for WP 7 is to analyze the cost of managing myocardial infarction and unstable angina. The specific objective is to compare procedure cost by hospital complexity level, by country and by performance in terms of outcome achieved, and to take into account the patients' severity characteristics.
The aim is to calculate the cost of hospital care for selected coronary patients and procedures and relate them to short term outcome (in hospital mortality).
The study will be made in several phases
1. Clarifying the objectives and definitions for the cost study and requirements for patient level data collection.
Study will be done using two samples. The first sample include those hospitals (at least one hospital in Spain and Finland) in which patient-level data (from the patient questionnaire) can be linked with cost information. Second sample will include all hospitals of the Eurhobop and is based on more aggregate level cost information
2 .Evaluation of cost information available in participating hospitals.

A Web-based questionnaire for hospitals

- whether hospitals have cost information at individual patient level and if this can this be linked to patients included in the project data base,
- the availability of more aggregate level of cost information resource items (such as cost of procedures and intensive care days) included in our database.
- Only eight hospitals has answered

3. Developing methods and protocols for measuring and analyzing costs and outcomes. By end of the year 2011
4. Collecting cost data by the end of the year 2011
    - Sample 1:Patient level cost data available from Barcelona, Helsinki , Kuopio, Oulu).
    - Sample 2 :Cost calculated from patient level data on hospital days, procedures etc. using relative cost of the cost items

There is much evidence that complications, hospital infections and medical errors increase the cost of hospital care at individual patient level.Costs are low if patient dies at earlier days of admission and much of resources are allocated to patient during their last days before death

The preliminary conclusions from EuroDRG project is that:

- There is no clear relation between cost and quality within countries. There is a potential for improving performance by containing cost or improving quality/outcome
- There are differences between countries:
    - In Germany high variation in quality
    - In France. high variation in cost
    - In Sweden. low variation in cost and quality

The next steps in EURHOBOP project will be:

- The estimation of quality (death) and cost functions will be done from the two samples. The risk factors are measured much better than in the EuroDRG project.
- The estimation will be done by using pooled data but evaluating country differences of functions using CHOW-type of test
- There will be sensitivity analysis using alternative specifications
- Joint confidence intervals for costs and quality.

➢ D9 [WP4-IMAS-IMIM] February 2012 and D11 [WP8 - HOPE] + statistical analyses planning. J Vila/I Subirana/R Elosua

There is variability in the proportion of type of ACS and of AMI/UA.
We cannot check this and we have to rely on diagnoses made by clinicians.
If we are interested in benchmarking we have to trust the information given on admission and discharge which is very likely to be accurate.

We reach the following agreements on the interpretation of “non stated”:

- Smoking: pending from partners
- Diabetes, if not stated it is NO
- Hypertension, if not it is NO
- Anterior st elevation if not stated it is (safer to put it as MISSING) . ITALY IS MISSING for sure. They should be addressed at country level.

- Q Wave in the evolving ECG if not stated it is NO. There is an extra problem. We have to consider ITALY as MISSING. For the rest it ranges a lot from a hospital to another.
- These two variables are relevant prognostic clinical variables but not essential.
- Renal Failure if not stated it is NO
- Alzheimer if not stated it is NO
- Cardiac Arrest: if not stated it is NO
- Reinfarction: if not stated it is NO
- Stroke: if not stated it is NO
- Bleeding>50: if not stated it is NO
- Bleeding >30: if not stated it is NO
- CABG: if not stated it is NO
- Intracardiac defibrillator: if not stated it is NO
- Intra aortic balloon pump: if not stated it is NO

Every partner will confirm this with the PIs in their hospitals.

We have the EUPHORIC model that can be validated with the new data from EURHOBOP (main objective).
Now we might think of a set of models increasingly complex with severity data.
We might take 2 or 3 severity variables and include them in model 2.
We could think a model 3 (model 2 with two other extra variables less often found in medical records).
This is very practical to sophisticate the approach to a individual hospitals in the future.

➢ D12-D13-D14-D15 [WP1-WP2-ISS] M Torre

There will be a new deliverable not foreseen at the beginning of the project: D 15 Dissemination Plan that will be added to the list of the project Deliverables.

M Torre presents the draft of the Dissemination Plan. All the partners are requested to send their contribution by the end of November 2011. The first version of the dissemination plan will be released on January 2012.

To give visibility to all the investigators all the produced publications will include a list of them as an appendix “whenever the journals rules allows it”. Alternatively the publication will include an http address referring to the complete list of investigators.
The cover sheet to be used for all the deliverables has been updated including all the associated collaborating partners.

J Marrugat suggests to include in the list of EURHOBOP events the Summer of School of Menorca 2012. This possibility will be explored by IMAS-IMIM.

To improve the dissemination every institution website will include a link to the EURHOBOP website

All the country representatives are requested to present EURHOBOP in their national societies. M Torre will prepare a standard presentation summarizing the project for all the partners.

Starting from the EUPHORIC brochure and adopting the same scheme, a draft version of the EURHOBOP brochure is presented. May 2012 is deadline for the English version for the EURHOBOP brochure, and then partners will have to translate it into the other languages.

5) Discussion about a possible exploitation of EURHOBOP knowledge and intellectual property rights registration.

J Marrugat presents the rules for Authorship of Intelectual Property Rights

EAHC Contract & our consortium agreement are explicit on the possible IPR & patent property.
We can register a software as intellectual property: the EURHOBOP benchmarking functions (it is not possible to patent it).
The authors will be the EURHOBOP PIs, but we have to follow the partners' institutions sharing rules.
We would register the software in Spain which guarantees it to be respected in all Europe.

As for the possible exploitation of the EURHOBOP functions:
Partners have to empower the EURHOBOP coordinator to negotiate future proposals
Exploitation exclusivity on first accepted proposal should be guaranteed.
J Marrugat shows an example of exploitation licensing.
An alternative example of exploitation licensing would be sharing part of the benefits of exploitation (royalties).
Partners are requested to explore within their institutions the sharing rules for IPR with investigators (all partners).
J Marrugat will prepare a document on IPR for partners'institutions. He will also prepare a document of adhesion or transfer of rights, as well as an empowerment document to allow him to negotiate IPR licensing.

6) List of possible scientific papers and their leaders and main contributors, final meeting planning, and all other business.

The list of possible scientific papers and their leaders is discussed and proposed preliminarily as follows:

Benchmarking and public Health:

TITLE	WP	Main contributor	Assoc. contributors
EURHOBOP Protocol	WP2	ISS	IMIM PSMAR
Validation of the set of functions	WP4	IMIM PSMAR	ALL
Presence of severity variables in Letter of Discharge	WP5	AEPMCV	THL
Cost analysis	WP7	THL	

Clinical

TITLE	WP	Main contributor	Assoc. contributors
Sex inequalities	WP6	DEASL	
Role of age in utility of certain clinical procedures (to be done by merging EURHOBOP database with EUPHORIC one)	-	IMIM PSMAR	AEPMCV, ISS
Systolic dysfunction and mortality in different countries, and aggressiveness of treatments	-	FMUP	
All local data papers	-	Each Assoc Coll Partner on its own.	

This point remains open for proposals for the rest of the project.

Date and place for the EURHOBOP Final Meeting: 18 and 19 June 2012 in Barcelona.