**Supplementary table 1.**

Full correspondence between the HTA Core Model® and the Genetic Counseling report

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| The Core Model and its Assessment Elements (AEs) | The Genetic Counseling report |
| **CUR domain (health problem and current use of the technology)** | |
| **A0007:** What is the target population in this assessment?  **A0001**: For which health conditions and populations, and for what purposes is the technology used?  **G0009**: Who decides which people are eligible for the technology and on what basis?  **A0021:** What is the reimbursement status of the technology? | **T7**: Access and referral to genetic counseling services  **T2**: Recognition and reimbursement of genetic medicine in Luxembourg  **T11:** Remuneration of genetic services rendered by physicians in other countries  **AC9:** Coefficient for the cost estimation of the act |
| **TEC domain (description and technical characteristics of the technology)** | |
| **B0001**: What is this technology and the comparator(s)?  **B0002**: What is the claimed benefit of the technology in relation to the comparator(s)?  **B0004**: Who administers the technology and the comparators and in what context and level of care are they provided?  **B0007**: What material investments are needed to use the technology?  **B0008**: What kind of special premises are needed to use the technology and the comparator(s)?  **B0013**: What kind of training and information is needed for the personnel/carer using this technology?  **B0014:** What kind of training and information should be provided for the patient who uses the technology, or for his family? | **T3:** Definition and goals of service delivery  **AC1**: Location of service delivery  **AC2**: Hospital services and competence centers to which the medical act shall be limited  **AC3**: Medical specialty to which the act shall be limited  **AC5**: Necessary medical devices  **T3**: Definition and goals of service delivery  **T1:** Genetic medicine – an emerging professional field and medical specialty  **T6/AC4**: Specific competence standards, professional experience and training required for the performance  **T5:** Content and mode of application  **T9:** Ethical assessment |
| **EFF domain (clinical effectiveness)** | |
| **D0012**: What is the effect of the technology on generic health-related quality of life?  **D0030:** Does the knowledge of the test affect the patient’s non-health related quality of life?  **D0029:** What are the overall benefits and harms of the technology in health outcomes?  **D1008:** What is known about the intra- and inter-observer variation in test interpretation? | **T4**: Outcome of genetic counseling  **T5:** Content and mode of application |
| **ECO domain (costs and economic evaluation)** | |
| **E0001**: What types of resources are used when delivering the assessed technology and its comparator?  **E0009:** What were the measured and/or estimated costs of the assessed technology and its comparator(s)? | **AC10**: Economic impact analyses of the implementation, modification or abolition of an act  **T11:** Remuneration of genetic services rendered by physicians in other countries |
| **ETH domain (ethical analysis)** | |
| **F0010:** What are the known and estimated benefits and harms for patients when implementing or not implementing the technology?  **F0011:** What are the benefits and harms of the technology for relatives, other patients, organizations, commercial entities, society, etc.?  **F0003:** Are there any other hidden or unintended consequences of the technology and its applications for patients/users, relatives, other patients, organizations, commercial entities, society etc.?  **F0005:** Is the technology used for patients/people that are especially vulnerable?  **F0004:** Does the implementation or use of the technology affect the patient´s capability and possibility to exercise autonomy?  **F0006:** Is there a need for any specific interventions or supportive actions concerning information in order to respect patient autonomy when the technology is used?  **F0007:** Does the implementation or withdrawal of the technology challenge or change professional values, ethics or traditional roles?  **F0101:** Does the technology invade the sphere of privacy of the patient/user?  **F0016:** Can the use of the technology pose ethical challenges that have not been considered in the existing legislations and regulations? | **T9**: Ethical assessment  **T5:** Content and mode of application  **T9:** Ethical assessment  **T10:** Genomic counseling - outlook on future developments  **T2:** Genetic medicine – recognition and reimbursement in Luxembourg  **T9:** Ethical assessment  **T5:** Content and mode of application  **T6:** Required competencies and professional training to perform genetic counseling  **T10:** Genomic counseling - outlook on future developments  **T2:** Genetic medicine - recognition and reimbursement in Luxembourg  **T9:** Ethical assessment |
| **ORG domain (organizational aspects)** | |
| **G0007**: What are the likely budget impacts of implementing the technologies being compared? | **AC10**: Economic impact analyses of the implementation, modification or abolition of an act |
| **SOC domain (social aspects)** | |
| **H0002:** Who are the important others that may be affected, in addition to the individual using the technology?  **H0003:** What kind of support and resources are needed for the patient or citizen as the technology is introduced?  **H0006:** How do patients, citizens and the important others using the technology react and act upon the technology?  **H0007:** What is the knowledge and understanding of the technology in patients and citizens? | **T5:** Content and mode of application  **T4:** Outcome of genetic counseling  **T5:** Content and mode of application |
| **LEG domain (legal aspects)** | |
| **I0002**: What kind of legal requirements are there for providing appropriate information to the user or patient and how should this be addressed when implementing the technology?  **I0007:** Is there a possibility that the use of the technology produces such additional information that is not directly related to the current care of the patient and may violate her right to respect for private life?  **I0023**: What kind of legal price control mechanisms are there relevant for the technology? | **T9**: Ethical assessment  **T10:** Genomic counselling - outlook on future developments  **AC7**: Cumulation rules for medical acts  **AC8**: Frequency of coverage of the medical act **AC9**: Coefficient for the cost estimation of the act |
| No assessment elements corresponding | **T8:** Time estimates for a genetic counseling session  **AC6**: Need for operational assistants  **AC11**: Applied reference nomenclature  **AC12**: Period of provisional validation and deadline for mandatory review |

Note:T = topic; AC = assessment criterion required for the national report.

**Supplementary table 2.**The Core Model 2.1® domains and assessment elements revealing concordance with the national genetic counseling report

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| **CUR domain (health problem and current use of the technology)**  A0007: What is the target population in this assessment?  A0001: For which health conditions and populations, and for what purposes is the technology used?  G0009: Who decides which people are eligible for the technology and on what basis?  A0021: What is the reimbursement status of the technology? |
| **TEC domain (description and technical characteristics of the technology)**  B0001: What is this technology and the comparator(s)?  B0002: What is the claimed benefit of the technology in relation to the comparator(s)?  B0004: Who administers the technology and the comparators and in what context and level of care are they provided?  B0007: What material investments are needed to use the technology?  B0008: What kind of special premises are needed to use the technology and the comparator(s)?  B0013: What kind of training and information is needed for the personnel/carer using this technology?  B0014: What kind of training and information should be provided for the patient who uses the technology, or for his family? |
| **EFF domain (clinical effectiveness)**  D0012: What is the effect of the technology on generic health-related quality of life?  D0030: Does the knowledge of the test affect the patient’s non-health related quality of life?  D0029: What are the overall benefits and harms of the technology in health outcomes?  D1008: What is known about the intra- and inter-observer variation in test interpretation? |
| **ECO domain (costs and economic evaluation)**  E0001: What types of resources are used when delivering the assessed technology and its comparator?  E0009: What were the measured and/or estimated costs of the assessed technology and its comparator(s)? |
| **ETH domain (ethical analysis)**  F0010: What are the known and estimated benefits and harms for patients when implementing or not implementing the technology?  F0011: What are the benefits and harms of the technology for relatives, other patients, organizations, commercial entities, society, etc.?  F0003: Are there any other hidden or unintended consequences of the technology and its applications for patients/users, relatives, other patients, organizations, commercial entities, society etc.?  F0005: Is the technology used for patients/people that are especially vulnerable?  F0004: Does the implementation or use of the technology affect the patient´s capability and possibility to exercise autonomy?  F0006: Is there a need for any specific interventions or supportive actions concerning information in order to respect patient autonomy when the technology is used?  F0007: Does the implementation or withdrawal of the technology challenge or change professional values, ethics or traditional roles?  F0101: Does the technology invade the sphere of privacy of the patient/user?  F0016: Can the use of the technology pose ethical challenges that have not been considered in the existing legislations and regulations? |
| **ORG domain (organizational aspects)**  G0007: What are the likely budget impacts of implementing the technologies being compared? |
| **SOC domain (social aspects)**  H0002: Who are the important others that may be affected, in addition to the individual using the technology?  H0003: What kind of support and resources are needed for the patient or citizen as the technology is introduced?  H0006: How do patients, citizens and the important others using the technology react and act upon the technology?  H0007: What is the knowledge and understanding of the technology in patients and citizens? |
| **LEG domain (legal aspects)**  I0002: What kind of legal requirements are there for providing appropriate information to the user or patient and how should this be addressed when implementing the technology?  I0007: Is there a possibility that the use of the technology produces such additional information that is not directly related to the current care of the patient and may violate her right to respect for private life?  I0023: What kind of legal price control mechanisms are there relevant for the technology? |

**Supplementary table 3.**The topics and the assessment criteria of the national Genetic Counseling report revealing concordance with the HTA Core Model®

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| **The Genetic Counseling report/ Topics** | **12 Assessment Criteria of the national report** |
| T1: Genetic medicine – an emerging professional field and medical specialty  T2: Recognition and reimbursement of genetic medicine in Luxembourg  T3: Definition and goals of service delivery  T4: Outcome of genetic counseling  T5: Content and mode of application  T6: Ethical assessment | AC1: Location and service delivery  AC2: Hospital services and competence centres to which the medical act shall be limited  AC3: Medical speciality to which the act shall be limited  AC4: Specific competence standards and professional experience required for the performance  AC5: Necessary medical devices  AC6: Need for operational assistants  AC7: Cumulation rules  AC8: Frequency of coverage of the medical act  AC9: Coefficient for the increase/reduction of the act  AC10: Economic impact analyses of the implementation, modification or abolition of an act  AC11: Applied reference nomenclature  AC12: Period of provisional validation and deadline for mandatory review |

**Supplementary table 4.**

Core statements of the interviews with five different European HTA agencies on their experiences with the HTA Core Model®

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| **Ludwig-Boltzmann Institut for HTA (LBI-HTA), Austria** |
| *“The questions that still need to be discussed by the Core Model are how to evaluate the quality of non-randomized studies; how to use the data from non-comparative studies; and how to summarize or evaluate the overall strength of evidence by the Core Model”.* |
| **Hauptverband der österreichischen Sozialversicherungsträger (HBV-SV), Austria** |
| “*I usually take the Core Model tool for assessment and select the assessment elements I think I should include in the report for answering the topic as expected. I get the topic for example from the health insurance, etc. Next, I carry out the scoping with these assessment elements in the Core Model already and select the assessment elements that are relevant for this topic. Usually the first four domains are included in the report but not all the assessment elements are always necessary within these domains. In case of choosing the rapid assessment, the decision whether to include the other domains such as ethical or organizational depends very much on the topic*”. |
| **The Centre for Health Technology Assessment, Department of Public Health, University of Tartu, Estonia** |
| *“The model is well-structured and enables to share the results between the countries. The methodological guideline is very helpful for gathering information and deciding on which data is required to be included. It also guarantees that the national reports are more valid and transferable to other contexts”.* |
| **Finnish Office for Health Technology Assessment (FinOHTA), Finland** |
| “*There is a strong tradition to include cost-effectiveness studies in the full HTA reports and the organizational aspects play an important role in the rapid assessments for hospitals*”. |
| **Cellule d’expertise médicale (CEM), Luxembourg** |
| *“I think that for example 10% of the assessment elements of the Core Model should be mandatory, and for the rest of the questions it can be decided by the agency or organization whether to include them or not”.* |