## File 1

## The CENTER-TBI participants and investigators:

Cecilia Åkerlund<sup>1</sup>, Krisztina Amrein<sup>2</sup>, Nada Andelic<sup>3</sup>, Lasse Andreassen<sup>4</sup>, Audny Anke<sup>5</sup>, Anna Antoni<sup>6</sup>, Gérard Audibert<sup>7</sup>, Philippe Azouvi<sup>8</sup>, Maria Luisa Azzolini<sup>9</sup>, Ronald Bartels<sup>10</sup>, Pál Barzó<sup>11</sup>, Romuald Beauvais<sup>12</sup>, Ronny Beer<sup>13</sup>, Bo-Michael Bellander<sup>14</sup>, Antonio Belli<sup>15</sup>, Habib Benali<sup>16</sup>, Maurizio Berardino<sup>17</sup>, Luigi Beretta<sup>9</sup>, Morten Blaabjerg<sup>18</sup>, Peter Bragge<sup>19</sup>, Alexandra Brazinova<sup>20</sup>, Vibeke Brinck<sup>21</sup>, Joanne Brooker<sup>22</sup>, Camilla Brorsson<sup>23</sup>, Andras Buki<sup>24</sup>, Monika Bullinger<sup>25</sup>, Manuel Cabeleira<sup>26</sup>, Alessio Caccioppola<sup>27</sup>, Emiliana Calappi <sup>27</sup>, Maria Rosa Calvi<sup>9</sup>, Peter Cameron<sup>28</sup>, Guillermo Carbayo Lozano<sup>29</sup>, Marco Carbonara<sup>27</sup>, Giorgio Chevallard<sup>30</sup>, Arturo Chieregato<sup>30</sup>, Giuseppe Citerio<sup>31, 32</sup>, Maryse Cnossen<sup>33</sup>, Mark Coburn<sup>34</sup>, Jonathan Coles<sup>35</sup>, Jamie D. Cooper<sup>36</sup>, Marta Correia<sup>37</sup>, Amra Čović<sup>38</sup>, Nicola Curry<sup>39</sup>, Endre Czeiter<sup>24</sup>, Marek Czosnyka<sup>26</sup>, Claire Dahyot-Fizelier<sup>40</sup>, Helen Dawes<sup>41</sup>, Véronique De Keyser<sup>42</sup>, Vincent Degos<sup>16</sup>, Francesco Della Corte<sup>43</sup>, Hugo den Boogert<sup>10</sup>, Bart Depreitere<sup>44</sup>, Đula Đilvesi 45, Abhishek Dixit46, Emma Donoghue22, Jens Dreier47, Guy-Loup Dulière48, Ari Ercole46, Patrick Esser<sup>41</sup>, Erzsébet Ezer<sup>49</sup>, Martin Fabricius<sup>50</sup>, Valery L. Feigin<sup>51</sup>, Kelly Foks<sup>52</sup>, Shirin Frisvold<sup>53</sup>, Alex Furmanov<sup>54</sup>, Pablo Gagliardo<sup>55</sup>, Damien Galanaud<sup>16</sup>, Dashiell Gantner<sup>28</sup>, Guoyi Gao<sup>56</sup>, Pradeep George<sup>57</sup>, Alexandre Ghuysen<sup>58</sup>, Lelde Giga<sup>59</sup>, Ben Glocker<sup>60</sup>, Jagoš Golubovic<sup>45</sup>, Pedro A. Gomez <sup>61</sup>, Johannes Gratz<sup>62</sup>, Benjamin Gravesteijn<sup>33</sup>, Francesca Grossi<sup>43</sup>, Russell L. Gruen<sup>63</sup>, Deepak Gupta<sup>64</sup>, Juanita A. Haagsma<sup>33</sup>, Iain Haitsma<sup>65</sup>, Raimund Helbok<sup>13</sup>, Eirik Helseth<sup>66</sup>, Lindsay Horton <sup>67</sup>, Jilske Huijben<sup>33</sup>, Peter J. Hutchinson<sup>68</sup>, Bram Jacobs<sup>69</sup>, Stefan Jankowski<sup>70</sup>, Mike Jarrett<sup>21</sup>, Ji-yao Jiang<sup>56</sup>, Kelly Jones<sup>51</sup>, Mladen Karan<sup>47</sup>, Angelos G. Kolias<sup>68</sup>, Erwin Kompanje<sup>71</sup>, Daniel Kondziella<sup>50</sup>, Evgenios Koraropoulos<sup>46</sup>, Lars-Owe Koskinen<sup>72</sup>, Noémi Kovács<sup>73</sup>, Alfonso Lagares<sup>61</sup>, Linda Lanyon<sup>57</sup>, Steven Laureys<sup>74</sup>, Fiona Lecky<sup>75</sup>, Rolf Lefering<sup>76</sup>, Valerie Legrand<sup>77</sup>, Aurelie Lejeune<sup>78</sup>, Leon Levi<sup>79</sup>, Roger Lightfoot<sup>80</sup>, Hester Lingsma<sup>33</sup>, Andrew I.R. Maas<sup>42</sup>, Ana M. Castaño-León<sup>61</sup>, Marc Maegele<sup>81</sup>, Marek Majdan<sup>20</sup>, Alex Manara<sup>82</sup>, Geoffrey Manley<sup>83</sup>, Costanza Martino<sup>84</sup>, Hugues Maréchal<sup>48</sup>, Julia Mattern<sup>85</sup>, Catherine McMahon<sup>86</sup>, Béla Melegh<sup>87</sup>, David Menon<sup>46</sup>, Tomas Menovsky<sup>42</sup>, Davide Mulazzi<sup>27</sup>, Visakh Muraleedharan<sup>57</sup>, Lynnette Murray<sup>28</sup>, Nandesh Nair<sup>42</sup>, Ancuta Negru<sup>88</sup>, David Nelson<sup>1</sup>, Virginia Newcombe<sup>46</sup>, Daan Nieboer<sup>33</sup>, Quentin Noirhomme<sup>74</sup>, József Nyirádi<sup>2</sup>, Otesile Olubukola<sup>75</sup>, Matej Oresic89, Fabrizio Ortolano27, Aarno Palotie90, 91, 92, Paul M. Parizel93, Jean-François Payen94, Natascha Perera<sup>12</sup>, Vincent Perlbarg<sup>16</sup>, Paolo Persona<sup>95</sup>, Wilco Peul<sup>96</sup>, Anna Piippo-Karjalainen<sup>97</sup>, Matti Pirinen<sup>90</sup>, Horia Ples<sup>88</sup>, Suzanne Polinder<sup>33</sup>, Inigo Pomposo<sup>29</sup>, Jussi P. Posti <sup>98</sup>, Louis Puybasset<sup>99</sup>, Andreea Radoi 100, Arminas Ragauskas<sup>101</sup>, Rahul Raj<sup>97</sup>, Malinka Rambadagalla<sup>102</sup>, Ruben Real<sup>38</sup>, Jonathan Rhodes<sup>103</sup>, Sylvia Richardson<sup>104</sup>, Sophie Richter<sup>46</sup>, Samuli Ripatti<sup>90</sup>, Saulius Rocka<sup>101</sup>, Cecilie Roe<sup>105</sup>, Olav Roise<sup>106</sup>, Jonathan Rosand<sup>107</sup>, Jeffrey V. Rosenfeld<sup>108</sup>, Christina Rosenlund<sup>109</sup>, Guy Rosenthal<sup>54</sup>, Proffesor Clusmann<sup>34</sup>, Sandra Rossi<sup>95</sup>, Daniel Rueckert<sup>60</sup>, Martin Rusnák<sup>110</sup>, Juan Sahuquillo<sup>100</sup>, Oliver Sakowitz<sup>85, 111</sup>, Renan Sanchez-Porras<sup>111</sup>, Janos Sandor<sup>112</sup>, Nadine Schäfer<sup>76</sup>, Silke Schmidt<sup>113</sup>, Herbert Schoechl<sup>114</sup>, Guus Schoonman<sup>115</sup>, Rico Frederik Schou<sup>116</sup>, Elisabeth Schwendenwein<sup>6</sup>, Charlie Sewalt<sup>33</sup>, Toril Skandsen<sup>117, 118</sup>, Peter Smielewski<sup>26</sup>, Abayomi Sorinola<sup>119</sup>, Emmanuel Stamatakis<sup>46</sup>, Simon Stanworth<sup>39</sup>, Ana Stevanovic<sup>34</sup>, Robert Stevens<sup>120</sup>, William Stewart<sup>121</sup>, Ewout W. Steverberg<sup>33, 122</sup>, Nino Stocchetti<sup>123</sup>, Nina Sundström<sup>124</sup>, Anneliese Synnot<sup>22, 125</sup>, Riikka Takala<sup>126</sup>, Viktória Tamás<sup>119</sup>, Tomas Tamosuitis<sup>127</sup>, Mark Steven Taylor<sup>20</sup>, Braden Te Ao<sup>51</sup>, Olli Tenovuo<sup>98</sup>, Alice Theadom<sup>51</sup>, Matt Thomas<sup>82</sup>, Dick Tibboel<sup>128</sup>, Marjolein Timmers<sup>71</sup>, Christos Tolias<sup>129</sup>, Tony Trapani<sup>28</sup>, Cristina Maria Tudora<sup>88</sup>, Peter Vajkoczy 130, Shirley Vallance28, Egils Valeinis59, Zoltán Vámos49, Gregory Van der Steen42, Joukje van der Naalt<sup>69</sup>, Jeroen T.J.M. van Dijck <sup>96</sup>, Thomas A. van Essen<sup>96</sup>, Wim Van Hecke<sup>131</sup>, Caroline van Heugten<sup>132</sup>, Dominique Van Praag<sup>133</sup>, Thijs Vande Vyvere<sup>131</sup>, Audrey Vanhaudenhuyse<sup>16,74</sup>, Roel P. J. van Wijk<sup>97</sup>, Alessia Vargiolu<sup>32</sup>, Emmanuel Vega<sup>79</sup>, Kimberley Velt<sup>33</sup>, Jan Verheyden<sup>131</sup>, Paul M. Vespa<sup>134</sup>, Anne Vik<sup>117, 135</sup>, Rimantas Vilcinis<sup>127</sup>, Victor Volovici<sup>65</sup>, Nicole von Steinbüchel<sup>38</sup>, Daphne Voormolen<sup>33</sup>, Petar Vulekovic<sup>45</sup>, Kevin K.W. Wang<sup>136</sup>, Eveline Wiegers<sup>33</sup>, Guy Williams<sup>46</sup>, Lindsay Wilson<sup>67</sup>, Stefan Winzeck<sup>46</sup>, Stefan Wolf<sup>137</sup>, Zhihui Yang<sup>136</sup>, Peter Ylén<sup>138</sup>, Alexander Younsi<sup>85</sup>, Frederik A. Zeiler<sup>46,139</sup>, Veronika Zelinkova<sup>20</sup>, Agate Ziverte<sup>59</sup>, Tommaso Zoerle<sup>27</sup>

- <sup>1</sup> Department of Physiology and Pharmacology, Section of Perioperative Medicine and Intensive Care, Karolinska Institutet, Stockholm, Sweden
- <sup>2</sup> János Szentágothai Research Centre, University of Pécs, Pécs, Hungary
- <sup>3</sup> Division of Surgery and Clinical Neuroscience, Department of Physical Medicine and Rehabilitation, Oslo University Hospital and University of Oslo, Oslo, Norway
- <sup>4</sup> Department of Neurosurgery, University Hospital Northern Norway, Tromso, Norway
- <sup>5</sup> Department of Physical Medicine and Rehabilitation, University Hospital Northern Norway, Tromso, Norway
- <sup>6</sup> Trauma Surgery, Medical University Vienna, Vienna, Austria
- <sup>7</sup> Department of Anesthesiology & Intensive Care, University Hospital Nancy, Nancy, France
- 8 Raymond Poincare hospital, Assistance Publique Hopitaux de Paris, Paris, France
- <sup>9</sup> Department of Anesthesiology & Intensive Care, S Raffaele University Hospital, Milan, Italy
- <sup>10</sup> Department of Neurosurgery, Radboud University Medical Center, Nijmegen, The Netherlands
- <sup>11</sup> Department of Neurosurgery, University of Szeged, Szeged, Hungary
- <sup>12</sup> International Projects Management, ARTTIC, Munchen, Germany
- <sup>13</sup> Department of Neurology, Neurological Intensive Care Unit, Medical University of Innsbruck, Innsbruck, Austria
- <sup>14</sup> Department of Neurosurgery & Anesthesia & intensive care medicine, Karolinska University Hospital, Stockholm, Sweden
- 15 NIHR Surgical Reconstruction and Microbiology Research Centre, Birmingham, UK
- <sup>16</sup> Anesthesie-Réanimation, Assistance Publique Hopitaux de Paris, Paris, France
- $^{17}$  Department of Anesthesia & ICU, AOU Città della Salute e della Scienza di Torino Orthopedic and Trauma Center, Torino, Italy
- <sup>18</sup> Department of Neurology, Odense University Hospital, Odense, Denmark
- <sup>19</sup> BehaviourWorks Australia, Monash Sustainability Institute, Monash University, Victoria, Australia
- <sup>20</sup> Department of Public Health, Faculty of Health Sciences and Social Work, Trnava University, Trnava, Slovakia
- <sup>21</sup> Quesgen Systems Inc., Burlingame, California, USA
- <sup>22</sup> Australian & New Zealand Intensive Care Research Centre, Department of Epidemiology and Preventive Medicine, School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia
- <sup>23</sup> Department of Surgery and Perioperative Science, Umeå University, Umeå, Sweden
- <sup>24</sup> Department of Neurosurgery, Medical School, University of Pécs, Hungary and Neurotrauma Research Group, János Szentágothai Research Centre, University of Pécs, Hungary
- <sup>25</sup> Department of Medical Psychology, Universitätsklinikum Hamburg-Eppendorf, Hamburg, Germany
- <sup>26</sup> Brain Physics Lab, Division of Neurosurgery, Dept of Clinical Neurosciences, University of Cambridge, Addenbrooke's Hospital, Cambridge, UK
- <sup>27</sup> Neuro ICU, Fondazione IRCCS Cà Granda Ospedale Maggiore Policlinico, Milan, Italy
- <sup>28</sup> ANZIC Research Centre, Monash University, Department of Epidemiology and Preventive Medicine, Melbourne, Victoria, Australia
- <sup>29</sup> Department of Neurosurgery, Hospital of Cruces, Bilbao, Spain
- <sup>30</sup> NeuroIntensive Care, Niguarda Hospital, Milan, Italy
- <sup>31</sup> School of Medicine and Surgery, Università Milano Bicocca, Milano, Italy
- 32 NeuroIntensive Care, ASST di Monza, Monza, Italy
- <sup>33</sup> Department of Public Health, Erasmus Medical Center-University Medical Center, Rotterdam, The Netherlands
- <sup>34</sup> Department of Neurosurgery, University Hospital of Aachen, Aachen, Germany
- <sup>35</sup> Department of Anesthesia & Neurointensive Care, Cambridge University Hospital NHS Foundation Trust, Cambridge, UK
- <sup>36</sup> School of Public Health & PM, Monash University and The Alfred Hospital, Melbourne, Victoria, Australia

- <sup>37</sup> Radiology/MRI department, MRC Cognition and Brain Sciences Unit, Cambridge, UK
- <sup>38</sup> Institute of Medical Psychology and Medical Sociology, Universitätsmedizin Göttingen, Göttingen, Germany
- <sup>39</sup> Oxford University Hospitals NHS Trust, Oxford, UK
- <sup>40</sup> Intensive Care Unit, CHU Poitiers, Potiers, France
- $^{\rm 41}$  Movement Science Group, Faculty of Health and Life Sciences, Oxford Brookes University, Oxford, UK
- <sup>42</sup> Department of Neurosurgery, Antwerp University Hospital and University of Antwerp, Edegem, Belgium
- <sup>43</sup> Department of Anesthesia & Intensive Care, Maggiore Della Carità Hospital, Novara, Italy
- <sup>44</sup> Department of Neurosurgery, University Hospitals Leuven, Leuven, Belgium
- <sup>45</sup> Department of Neurosurgery, Clinical centre of Vojvodina, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia
- <sup>46</sup> Division of Anaesthesia, University of Cambridge, Addenbrooke's Hospital, Cambridge, UK
- $^{47}$  Center for Stroke Research Berlin, Charité Universitätsmedizin Berlin, corporate member of Freie Universität Berlin, Humboldt-Universität zu Berlin, and Berlin Institute of Health, Berlin, Germany
- 48 Intensive Care Unit, CHR Citadelle, Liège, Belgium
- <sup>49</sup> Department of Anaesthesiology and Intensive Therapy, University of Pécs, Pécs, Hungary
- Departments of Neurology, Clinical Neurophysiology and Neuroanesthesiology, Region Hovedstaden Rigshospitalet, Copenhagen, Denmark
- <sup>51</sup> National Institute for Stroke and Applied Neurosciences, Faculty of Health and Environmental Studies, Auckland University of Technology, Auckland, New Zealand
- <sup>52</sup> Department of Neurology, Erasmus MC, Rotterdam, the Netherlands
- <sup>53</sup> Department of Anesthesiology and Intensive care, University Hospital Northern Norway, Tromso, Norway
- <sup>54</sup> Department of Neurosurgery, Hadassah-hebrew University Medical center, Jerusalem, Israel
- 55 Fundación Instituto Valenciano de Neurorrehabilitación (FIVAN), Valencia, Spain
- <sup>56</sup> Department of Neurosurgery, Shanghai Renji hospital, Shanghai Jiaotong University/school of medicine, Shanghai, China
- <sup>57</sup> Karolinska Institutet, INCF International Neuroinformatics Coordinating Facility, Stockholm, Sweden
- 58 Emergency Department, CHU, Liège, Belgium
- <sup>59</sup> Neurosurgery clinic, Pauls Stradins Clinical University Hospital, Riga, Latvia
- 60 Department of Computing, Imperial College London, London, UK
- 61 Department of Neurosurgery, Hospital Universitario 12 de Octubre, Madrid, Spain
- 62 Department of Anesthesia, Critical Care and Pain Medicine, Medical University of Vienna, Austria
- 63 College of Health and Medicine, Australian National University, Canberra, Australia
- $^{64}$  Department of Neurosurgery, Neurosciences Centre & JPN Apex trauma centre, All India Institute of Medical Sciences, New Delhi-110029, India
- 65 Department of Neurosurgery, Erasmus MC, Rotterdam, the Netherlands
- 66 Department of Neurosurgery, Oslo University Hospital, Oslo, Norway
- <sup>67</sup> Division of Psychology, University of Stirling, Stirling, UK
- <sup>68</sup> Division of Neurosurgery, Department of Clinical Neurosciences, Addenbrooke's Hospital & University of Cambridge, Cambridge, UK
- <sup>69</sup> Department of Neurology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands
- <sup>70</sup> Neurointensive Care, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK
- <sup>71</sup> Department of Intensive Care and Department of Ethics and Philosophy of Medicine, Erasmus Medical Center, Rotterdam, The Netherlands
- 72 Department of Clinical Neuroscience, Neurosurgery, Umeå University, Umeå, Sweden
- <sup>73</sup> Hungarian Brain Research Program Grant No. KTIA\_13\_NAP-A-II/8, University of Pécs, Pécs, Hungary

- <sup>74</sup> Cyclotron Research Center, University of Liège, Liège, Belgium
- <sup>75</sup> Emergency Medicine Research in Sheffield, Health Services Research Section, School of Health and Related Research (ScHARR), University of Sheffield, UK
- <sup>76</sup> Institute of Research in Operative Medicine (IFOM), Witten/Herdecke University, Cologne, Germany
- 77 VP Global Project Management CNS, ICON, Paris, France
- <sup>78</sup> Department of Anesthesiology-Intensive Care, Lille University Hospital, Lille, France
- 79 Department of Neurosurgery, Rambam Medical Center, Haifa, Israel
- 80 Department of Anesthesiology & Intensive Care, University Hospitals Southhampton NHS Trust, Southhampton, UK
- <sup>81</sup> Cologne-Merheim Medical Center (CMMC), Department of Traumatology, Orthopedic Surgery and Sportmedicine, Witten/Herdecke University, Cologne, Germany
- 82 Intensive Care Unit, Southmead Hospital, Bristol, Bristol, UK
- 83 Department of Neurological Surgery, University of California, San Francisco, California, USA
- 84 Department of Anesthesia & Intensive Care, M. Bufalini Hospital, Cesena, Italy
- 85 Department of Neurosurgery, University Hospital Heidelberg, Heidelberg, Germany
- <sup>86</sup> Department of Neurosurgery, The Walton centre NHS Foundation Trust, Liverpool, UK
- 87 Department of Medical Genetics, University of Pécs, Pécs, Hungary
- 88 Department of Neurosurgery, Emergency County Hospital Timisoara, Timisoara, Romania
- 89 School of Medical Sciences, Örebro University, Örebro, Sweden
- 90 Institute for Molecular Medicine Finland, University of Helsinki, Helsinki, Finland
- <sup>91</sup> Analytic and Translational Genetics Unit, Department of Medicine; Psychiatric & Neurodevelopmental Genetics Unit, Department of Psychiatry; Department of Neurology, Massachusetts General Hospital, Boston, MA, USA
- $^{92}$  Program in Medical and Population Genetics; The Stanley Center for Psychiatric Research, The Broad Institute of MIT and Harvard, Cambridge, MA, USA
- <sup>93</sup> Department of Radiology, Antwerp University Hospital and University of Antwerp, Edegem, Belgium
- 94 Department of Anesthesiology & Intensive Care, University Hospital of Grenoble, Grenoble, France
- <sup>95</sup> Department of Anesthesia & Intensive Care, Azienda Ospedaliera Università di Padova, Padova, Italy
- <sup>96</sup> Dept. of Neurosurgery, Leiden University Medical Center, Leiden, The Netherlands and Dept. of Neurosurgery, Medical Center Haaglanden, The Hague, The Netherlands
- 97 Department of Neurosurgery, Helsinki University Central Hospital
- <sup>98</sup> Division of Clinical Neurosciences, Department of Neurosurgery and Turku Brain Injury Centre, Turku University Hospital and University of Turku, Turku, Finland
- <sup>99</sup> Department of Anesthesiology and Critical Care, Pitié -Salpêtrière Teaching Hospital, Assistance Publique, Hôpitaux de Paris and University Pierre et Marie Curie, Paris, France
- <sup>100</sup> Neurotraumatology and Neurosurgery Research Unit (UNINN), Vall d'Hebron Research Institute, Barcelona, Spain
- <sup>101</sup> Department of Neurosurgery, Kaunas University of technology and Vilnius University, Vilnius, Lithuania
- <sup>102</sup> Department of Neurosurgery, Rezekne Hospital, Latvia
- <sup>103</sup> Department of Anaesthesia, Critical Care & Pain Medicine NHS Lothian & University of Edinburg, Edinburgh, UK
- 104 Director, MRC Biostatistics Unit, Cambridge Institute of Public Health, Cambridge, UK
- <sup>105</sup> Department of Physical Medicine and Rehabilitation, Oslo University Hospital/University of Oslo, Oslo, Norway
- 106 Division of Surgery and Clinical Neuroscience, Oslo University Hospital, Oslo, Norway
- <sup>107</sup> Broad Institute, Cambridge MA Harvard Medical School, Boston MA, Massachusetts General Hospital, Boston MA, USA

- <sup>108</sup> National Trauma Research Institute, The Alfred Hospital, Monash University, Melbourne, Victoria, Australia
- <sup>109</sup> Department of Neurosurgery, Odense University Hospital, Odense, Denmark
- 110 International Neurotrauma Research Organisation, Vienna, Austria
- <sup>111</sup> Klinik für Neurochirurgie, Klinikum Ludwigsburg, Ludwigsburg, Germany
- <sup>112</sup> Division of Biostatistics and Epidemiology, Department of Preventive Medicine, University of Debrecen, Debrecen, Hungary
- <sup>113</sup> Department Health and Prevention, University Greifswald, Greifswald, Germany
- <sup>114</sup> Department of Anaesthesiology and Intensive Care, AUVA Trauma Hospital, Salzburg, Austria
- <sup>115</sup> Department of Neurology, Elisabeth-TweeSteden Ziekenhuis, Tilburg, the Netherlands
- <sup>116</sup> Department of Neuroanesthesia and Neurointensive Care, Odense University Hospital, Odense, Denmark
- <sup>117</sup> Department of Neuromedicine and Movement Science, Norwegian University of Science and Technology, NTNU, Trondheim, Norway
- <sup>118</sup> Department of Physical Medicine and Rehabilitation, St.Olavs Hospital, Trondheim University Hospital, Trondheim, Norway
- <sup>119</sup> Department of Neurosurgery, University of Pécs, Pécs, Hungary
- <sup>120</sup> Division of Neuroscience Critical Care, John Hopkins University School of Medicine, Baltimore, USA
- <sup>121</sup> Department of Neuropathology, Queen Elizabeth University Hospital and University of Glasgow, Glasgow, UK
- <sup>122</sup> Dept. of Department of Biomedical Data Sciences, Leiden University Medical Center, Leiden, The Netherlands
- <sup>123</sup> Department of Pathophysiology and Transplantation, Milan University, and Neuroscience ICU, Fondazione IRCCS Cà Granda Ospedale Maggiore Policlinico, Milano, Italy
- 124 Department of Radiation Sciences, Biomedical Engineering, Umeå University, Umeå, Sweden
- <sup>125</sup> Cochrane Consumers and Communication Review Group, Centre for Health Communication and Participation, School of Psychology and Public Health, La Trobe University, Melbourne, Australia
- <sup>126</sup> Perioperative Services, Intensive Care Medicine and Pain Management, Turku University Hospital and University of Turku, Turku, Finland
- 127 Department of Neurosurgery, Kaunas University of Health Sciences, Kaunas, Lithuania
- <sup>128</sup> Intensive Care and Department of Pediatric Surgery, Erasmus Medical Center, Sophia Children's Hospital, Rotterdam, The Netherlands
- 129 Department of Neurosurgery, Kings college London, London, UK
- <sup>130</sup> Neurologie, Neurochirurgie und Psychiatrie, Charité Universitätsmedizin Berlin, Berlin, Germany
- 131 icoMetrix NV, Leuven, Belgium
- <sup>132</sup>Movement Science Group, Faculty of Health and Life Sciences, Oxford Brookes University, Oxford, UK
- <sup>133</sup> Psychology Department, Antwerp University Hospital, Edegem, Belgium
- 134 Director of Neurocritical Care, University of California, Los Angeles, USA
- <sup>135</sup> Department of Neurosurgery, St.Olavs Hospital, Trondheim University Hospital, Trondheim, Norway
- 136 Department of Emergency Medicine, University of Florida, Gainesville, Florida, USA
- <sup>137</sup> Department of Neurosurgery, Charité Universitätsmedizin Berlin, corporate member of Freie
  Universität Berlin, Humboldt-Universität zu Berlin, and Berlin Institute of Health, Berlin, Germany
  <sup>138</sup> VTT Technical Research Centre, Tampere, Finland
- <sup>139</sup> Section of Neurosurgery, Department of Surgery, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, MB, Canada

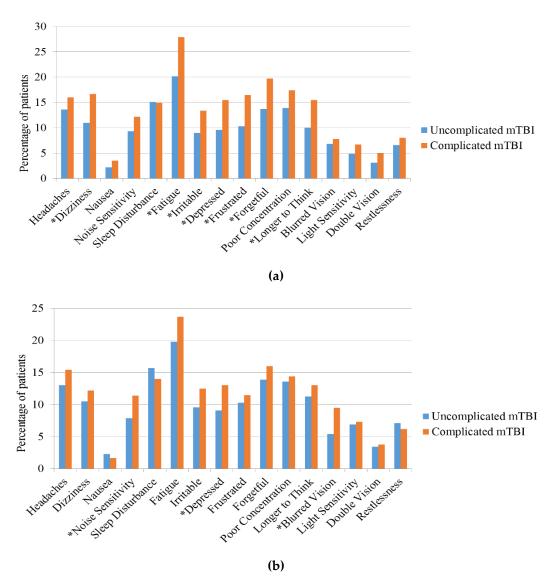
Table S1. Method of administration of the Rivermead Post-Concussion Symptoms Questionnaire.

	Telephone Interview	Postal Questionnaire	Web-Based Completion	Face-to-Face Interview	Not Completed/Missing
3 months	97 (3.3%)	784 (26.5%)	2 (0.07%)	418 (14.1%)	1653 (55.9%)
6 months	45 (1.5%)	594 (20.1%)	4 (0.14%)	659 (22.3%)	1653 (55.9%)

Table S2. Characteristics of mTBI patients with completed and uncompleted RPQ.

	Complete RPQ	Incomplete RPQ	P-Value
N	1302	1653	
Gender (male)	827 (63.5%)	1076 (65.1%)	0.374
Age 1 (years)	53 (35–66)	49 (29–69)	0.207
Education 1 (years)	14 (11–17)	12 (10–15)	< 0.01
Injury Mechanism			< 0.01
Road traffic accident	504 (38.7%)	506 (30.6%)	
Incidental fall	616 (47.3%)	825 (49.9%)	
Other non-intentional	72 (5.5%)	91 (5.5%)	
Violence/assault	43 (3.3%)	140 (8.5%)	
Act of mass violence	1 (0.1%)	3 (0.2%)	
Suicide attempt	7 (0.5%)	8 (0.5%)	
Other	42 (3.2%)	50 (3.0%)	
Unknown	17 (1.3%)	30 (1.8%)	
Psychiatric Medical History	146 (11.2%)	249 (15.1%)	< 0.01
Anxiety	36 (24.7%)	77 (30.9%)	0.183
Depression	89 (61.0%)	146 (58.6%)	0.650
Sleep disorders	19 (13.0%)	34 (13.7%)	0.857
Schizophrenia	3 (2.1%)	2 (0.8%)	0.283
Substance abuse disorder	17 (11.6%)	62 (24.9%)	< 0.01
Other	19 (13.0%)	43 (17.3%)	0.262
GCS baseline <sup>1</sup>	15 (15–15)	15 (14–15)	0.037
Computed Tomography			
Any intracranial injury on first CT	599 (46.0%)	652 (39.4%)	< 0.01

<sup>&</sup>lt;sup>1</sup> Data are displayed as median, with the first and third quartile given within brackets. mTBI, mild traumatic brain injury; RPQ, Rivermead Post-Concussion Symptoms Questionnaire; CT, Computed Tomography.



**Figure S1.** (a) Frequency of post-concussion symptoms with a severity rating of 3 (moderate problem) or higher at 3 months. (b) Frequency of post-concussion symptoms with a severity rating of 3 (moderate problem) or higher at 6 months. \* significant (p < 0.05).

**Table S3.** Significant predictors in a multivariable model on the association of complicated versus uncomplicated mTBI on the presence of PCS (with a severity rating of 2 (mild problem) or higher).

Post-Concussion Syndrome		3 Months			6 Months	
Predictor	OR	95% CI	P-Value	OR	95% CI	P-Value
Age	0.995	0.989-1.001	0.083	1.002	0.996-1.009	0.446
Gender (male)	0.588	0.460-0.749	< 0.01	0.617	0.483-0.790	< 0.01
Education	0.998	0.970 - 1.027	0.894	0.979	0.950 - 1.010	0.184
Stratum (ER)						
Admission	1.517	1.127-2.044	< 0.01	1.254	0.927-1.670	0.142
ICU	2.013	1.371-2.956	< 0.01	2.128	1.440-3.143	< 0.01
GCS baseline	0.925	0.753 - 1.137	0.459	0.927	0.753 - 1.142	0.477
Injury Mechanism (other)						
Road traffic accident	1.105	0.722-1.692	0.644	1.045	0.672-1.623	0.845
Incidental fall	1.252	0.967-1.620	0.088	1.623	1.249-2.110	< 0.01
Violence/assault/suicide	1.012	0.543 - 1.888	0.968	1.353	0.731 - 2.505	0.336
Psychiatric Medical History (yes)	1.592	0.698-3.632	0.269	2.800	1.232-6.365	0.014
Anxiety (yes)	1.198	0.516-2.783	0.674	0.687	0.299-1.577	0.376
Depression (yes)	1.146	0.513-2.559	0.740	0.832	0.374-1.853	0.653
Sleep disorders (yes)	1.631	0.557 - 4.782	0.372	0.817	0.283-2.357	0.709
Substance abuse disorder (yes)	1.272	0.414-3.915	0.674	2.092	0.628-6.968	0.229
Other	1.063	0.354-3.188	0.913	0.509	0.168-1.539	0.232
Any intracranial injury on first CT (yes)	1.252	0.945-1.658	0.117	1.084	0.807-1.456	0.594
N	1302	<u> </u>		1302	<u> </u>	
Nagelkerke R2	0.072	•		0.085	•	

mTBI, mild traumatic brain injury; PCS, post-concussion syndrome; OR, Odds Ratio; 95% CI, 95% confidence interval; PCS, post-concussion syndrome; ER, emergency room; ICU, intensive care unit; RTA, road traffic accident; CT, computed tomography. Note: schizophrenia was taken out of the analyses due to limited number of patients; violence/assault, act of mass violence and suicide attempt were grouped together into "violence/assault/suicide"; other non-intentional and other were grouped together into "other".