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2 **Key points**

3 → Maternity services across Europe during the pandemic has undergone changes to limit
4 virus transmission; however, many changes are not evidence-based.

5 → While these changes were introduced to keep women, babies, and healthcare staff safe,
6 the exclusion of companions and the separation of mothers and babies is particularly
7 antithetical to a human rights-based approach to quality care.

8 → A poll of COST Action 18211 network members showed that inconsistency in the
9 application of restrictions was high, and that there were significant deviations from the
10 recommendations of authoritative bodies.

11 → Concerns have emerged that restrictions in practice may have longer term negative
12 impacts on mothers and their families, but in particular, may impact on the long-term health
13 of babies.

14 → When practice changes deviate from evidence-based frameworks that underpin quality
15 care they must be monitored, appraised and evaluated to minimize unintended iatrogenic
16 effects.

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18 **Introduction**

19 The women's right to respectful and dignified care during labour and childbirth is strategically
20 accepted [1]. As management committee members of the EU COST Action CA18211
21 network ('DEVOTION') focused on traumatic childbirth (www.ca18211.eu), we are
22 concerned with ensuring a positive birth experience for all. We work on a pan-European
23 level to ensure women's rights to give birth in a clinically and psychologically safe
24 environment [2], including during the current COVID-19 pandemic.

25 As every country reacted to the COVID-19 pandemic, the swift initial response was based on
26 the basic principles of infection control, intended to protect all citizens. However, many
27 governments and healthcare workers acted independently as they waited for emerging

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28 evidence and detailed guidance from authoritative organisations and professional bodies to
29 inform appropriate action. The emerging guidance was quickly changing, with fundamental
30 differences in the recommendations of key international bodies, such as the World Health
31 Organisation (WHO), Royal College of Obstetricians and Gynaecologists (RCOG), American
32 College of Obstetricians and Gynaecologists (ACOG), and Royal College of Midwives
33 (RCM).

34 While grappling with the public health crisis, many institutional settings imposed significant
35 restrictions on key aspects of maternity services, such as prohibiting a birth companion in
36 labour, placing limitations on breastfeeding, and reducing the contact between a mother and
37 her baby. While these interventions were introduced to keep women, babies, and healthcare
38 staff safe, excluding companions and separating mothers from their babies are particularly
39 antithetical to a human rights-based approach to quality care. Questions are now being
40 raised about the appropriate balance between infection control and optimal maternity care,
41 particularly in terms of the longer term clinical and psychosocial consequences for the
42 mother, her baby, and the family. Women are reporting negative consequences of reduced
43 access to professional care, and of increased interventions, designed to reduce infection risk
44 but associated with increased levels of iatrogenic harm [2].

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46 Accounts of restrictions have fuelled fear for some women, especially in the absence of good
47 quality information from official sources, and in the context of alarming social media
48 comments. As a consequence, reports emerged that substantial minorities of women across
49 Europe have not been accessing publicly provided maternity services, either because they
50 are no longer on offer, or for fear of infection, or because they do not want to be isolated and
51 separated from their accompanying partner. In some cases, this has widened the gap in
52 health equality: where affordable, private consultations were booked and in other cases
53 services have not been accessed at all by some women. Antenatal and childbirth classes
54 were replaced with virtual formats, excluding women without appropriate devices or
55 broadband.

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56 Women having ultrasound screening had to come alone, facing the possible diagnosis of a
57 foetal anomaly, or even of intrauterine death, alone. Serious limitations were placed on
58 community services, such as support for breastfeeding. Midwives involved in parentcraft
59 were transferred to public health departments to assist in contact-tracing, implying that their
60 support services to women at this critical time was not essential. Examples of the
61 reorganisation of care from home or birth centres to hospital settings have been seen, as a
62 perception emerged that community care was less safe.

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64 ***Mapping the European response***

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66 In response to these issues, the COST Action CA18211 network undertook a poll of network
67 members, operationalised at a virtual meeting of the network on November 25th and 26th
68 2021, to explore the situation of maternity care provision in Europe. There were 88 clinicians
69 and researchers from 32 participating countries, representing different disciplines, such as
70 midwifery, obstetrics, nursing, psychology, psychiatry, biology, as well as members of lay
71 advocacy groups. One session focussed on the impact of COVID-19 on maternity care:
72 representatives from 11 countries gave presentations and members from 23 countries added
73 information via the chat. Variations in maternity care and restrictions between and within
74 countries were highlighted. Key themes are outlined in Table 1.

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76 These responses illustrate that inconsistency in the application of restrictions was high, and
77 that there were significant deviations from the recommendations of authoritative bodies,
78 such as the WHO [3], RCOG [4], and the RCM [5]. Most consistency lay in the fact that the
79 restrictions excluded birth companions to various degrees, and women were separated from
80 their babies or had significant limitations placed on the level of contact they could have if
81 their baby was in the NICU. Some COST Action CA18211 network respondents were
82 particularly concerned that locally applied restrictions deviated from international guidance
83 (in the absence of evidence to support such restrictions), but also that some services were

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84 reporting an increase (without evidence of clinical indication) in interventions, such as
85 induction of labour, and caesarean section rates. Others reported an increase in unplanned
86 out-of-hospital births, as women were delaying coming to hospital.

87 What is evident from this network internal poll is that despite the lack of evidence to justify
88 severe restrictions, they were continuing in many maternity services, even though emerging
89 research confirms they are not necessary or helpful to protect mothers, babies, and
90 healthcare staff from transmission of the virus. Such restrictions may contribute to an
91 environment in which women may be more at risk of experiencing a traumatic birth and raise
92 questions about the extent to which women are exposed to human rights violations due to
93 the continued implementation of potentially harmful practices. Data from a systematic review
94 and meta-analysis [6] shows that rates of perinatal mental health disorders such as anxiety
95 and depression are higher during the pandemic and may be partially attributed to
96 modifications to maternity services. The MBRRACE-UK rapid report [7] highlighted two
97 instances where women died by suicide, as referrals to perinatal mental health teams were
98 refused or delayed because of restrictions related to COVID-19.

99 Furthermore, the restrictions may lead maternity staff to engage in clinical practices in direct
100 contravention with evidence, professional recommendations, or deeply held ethical or moral
101 beliefs and values, as services attempt to control the risk of Covid-19 infection. These
102 changes in clinical practice may result in increasing levels of occupational moral injury,
103 making staff more vulnerable to mental health problems. This may lead to reduced working
104 hours, increased turnover, and adversely impact service user care [8].

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106 ***Getting the balance right***

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108 Given the scale and scope of the restrictions that have been imposed across maternity care
109 facilities, it is important now more than ever to ensure that authoritative guidelines are
110 evidence-based, and that restrictions in practice are appropriately aligned to evidence-based
111 policy recommendations. To enable this to happen, 'new' approaches to care during a

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112 pandemic crisis must be delivered within a quality framework, founded on evidence and
113 analysis of the potential unintended consequences. The current guidance from the WHO [3,
114 9] continues to emphasise that quality care includes ensuring a woman's right to a safe and
115 positive childbirth experience. When practice changes deviate from evidence-based
116 frameworks that underpin quality care they **must** be monitored, appraised and evaluated to
117 minimize unintended iatrogenic effects.

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119 The COVID-19 pandemic continues with new variants of the virus, resulting in increasing
120 infection rates and hospital admissions. However, as more evidence has emerged relating to
121 COVID-19 and pregnancy and newborn care, evidence-based principles to ensure equitable,
122 safe, effective, quality maternal and newborn care in a pandemic have been developed by a
123 group of midwifery professors in the UK. These clearly outline that care providers **must:**

124 • *“Continue to provide evidence-based, equitable, safe, compassionate and respectful care*
125 *for physical and mental health, wherever and whenever care takes place, by remote access*
126 *if necessary*

127 • *Protect the human rights of women and newborn infants, as far as possible*

128 • *Ensure strict hygiene measures and social distancing when possible*

129 • *Follow national guidance on use of personal protective equipment (PPE)*

130 • *Ensure birth companionship*

131 • *Prevent unnecessary interventions*

132 • *Do not separate a woman from her newborn infant(s) unless absolutely necessary*

133 • *Promote and support breastfeeding”*

134 • *Protect and support staff, including their mental health needs” [5, p.5]*

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136 ***Why getting it right is particularly important for maternity care***

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138 Unlike trauma during other life periods, the perinatal period is particularly crucial, as it not
139 only affects the mothers but their neonates, birth companions and families. Some events

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140 during pregnancy, labour, birth, and the early life period appear to have exaggerated life-
141 long consequences. There is now strong evidence that short, highly stressful exposures that
142 last for weeks are enough to set some individuals on such a negative trajectory and
143 emerging evidence that the COVID-19 pandemic has increased significantly levels of
144 maternal stress for some women during late pregnancy and the immediate post-partum
145 period in a manner reminiscent to the 1998 Quebec Ice Storm. Twenty years later children
146 exposed to it either in the immediate antenatal period, through chaotic intrapartum maternity
147 care or immediately post-partum, had altered metabolic parameters (BMI, insulin resistance)
148 and increased HPA axis reactivity (indicator of increased levels of stress) [10]. Furthermore,
149 the mother-infant bond is established in the immediate post-partum period, and any negative
150 psychological or psychosocial event may alter this bond, as well as early interactions and
151 parenting [11]. Evidence is growing that maternal perinatal stress has thus long-term impacts
152 on aspects of child development and health. The importance of this perinatal period for the
153 lifelong health of the infant was highlighted in a recent retrospective study [12]: Adults aged
154 between 47 and 83 that were breastfed as children had a 12% lower chance of contracting
155 COVID, whilst those exposed to maternal smoking around birth had a 20% higher risk of
156 infection and 24% higher risk of hospitalisation due to COVID-19 after adjustment for later-
157 life socioeconomic and environmental factors.

158 Extrapolating these data to the current maternity care situation suggests that the actions
159 taken to reduce risks due to COVID-19 may negatively impact maternal psychosocial
160 functioning, early parenting and, consequently, child developmental outcomes. It is thus
161 important to document these deviations from best practice, and to reverse them as soon as
162 possible.

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164 **Conclusion**

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166 Across Europe commentators on the current pandemic have noted the critical need for
167 health and social care providers to balance reduction of infection risk and loss of life with

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168 maintaining compassionate human relationships. The concerns within maternity care echo
169 those in other areas. The difference in maternity care is the potential of ‘just in case’
170 interventions to have long term, and even life-course, impacts on both mother, baby, and the
171 wider family. Variation in maternity care policy or guidelines for practice at a country,
172 regional, or facility level cannot be justified. Variation in particular practices for particular
173 women and pregnant people may be justified, but only in relation to their specific values, and
174 clinical and psychological needs. It has been notable that variance from the evidence has
175 disproportionately restricted human contact between pregnant and childbearing women and
176 professionals, partners, and neonates (limiting social, emotional and informational support),
177 and/or to increase unnecessary or unwanted intervention (risking high levels of adverse
178 psychological, physical, and/or emotional consequences). This raises serious questions
179 about an underlying ethos of maternity care provision and how it should be reframed when
180 services are rebuilt, once the pandemic is finally over.

181

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189 No interests to be disclosed

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192 JL and AH are Joint Senior Authors, all other authors contributed to planning and writing
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195 ***Ethical approval***

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242 ***Table list***

243 Table 1 “Key practice changes in thirty-two European countries”