

1 Paediatric Refugees from Ukraine: Guidance for health care providers in 2 Switzerland

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42

final draft

43 **Abstract**

44 **Background**

45 With the invasion of Ukraine by the Russian Army in February 2022, refugees, of which the
46 majority are women and children, started fleeing the war to neighbouring countries. Even
47 before the start of the current escalation, the conflict in the eastern part of Ukraine has led to
48 the internal displacement of more than 200'000 children and many others have experienced
49 attacks, e.g. on schools. This inevitably leads to limitations in health care delivery. During
50 transit, overcrowding, poor shelter, and vulnerability may further put refugees at increased
51 risk for infectious diseases.

52 **Methods**

53 Members of the Migrant Health Reference Group of Paediatrics Switzerland and the
54 Paediatric Infectious Disease Group in Switzerland developed this recommendation between
55 March and April 2022 in a modified Delphi process.

56 **Results**

57 A total of 48 recommendation were agreed on with a $\geq 80\%$ consensus. These include the
58 following topics: i) general including interpreter services, urgent health needs, personal
59 history and general check-up, ii) mental health including how to search for signs of
60 psychological distress without going into traumatic details, iii) vaccinations including
61 recommendation of evaluation and catch-up, iv) screening for tuberculosis, human-
62 immunodeficiency virus, hepatitis B and C and v) providing age-appropriate preventative and
63 health service information.

64
65 **Conclusion**

66 This document provides information regarding health issues that paediatricians and general
67 practitioners may face when caring for paediatric (here defined as all individuals <18 years of
68 age) refugees from Ukraine. The recommendations focus on Switzerland but may well be
69 used in other countries. As with any recommendation they may need to be adapted to
70 individual situations.

General
<ul style="list-style-type: none"> • Assess needs for an interpreter and inform any volunteer interpreters about confidentiality and ensure the patient/family can speak freely. • Identify urgent health need <ul style="list-style-type: none"> ○ Acute disease / chronic disease needing urgent treatment / interruption of medication etc. and exclude any need for isolation or protection. • Take a personal history also including: <ul style="list-style-type: none"> ○ Chronic diseases and known health problems ○ Previous curative and preventive care and advice received, ○ Transit, arrival date, current situation in Switzerland (accommodation, feeling safe, schooling, childcare, financial situation, family situation, social life, resources). ○ Evaluate needs of the main caregivers (health, emotional wellbeing, ability/needs to fulfil parental role, support in childcare) • Perform a thorough age-appropriate check-up as recommended by the checklist of Paediatrics Switzerland
Mental health
<ul style="list-style-type: none"> • Evaluate mental health needs and search for signs of psychological distress <ul style="list-style-type: none"> ○ Avoid going into traumatic details. ○ Search for: e.g., sleep disorders, nightmares, behaviour changes, hypervigilance, bedwetting, anxiety attacks, mutism, depression and ensure patient/family feel safe. ○ Evaluate needs of child/adolescents/parents/caregivers for mental health support/ specialised care.
Vaccination
<ul style="list-style-type: none"> • Ensure age-appropriate vaccination coverage: <ul style="list-style-type: none"> ○ Usually only documented vaccinations should be considered as received. ○ Ensure vaccination coverage and update according to Swiss recommendations ○ Include poliomyelitis vaccines (IPV) in all indicated DTPa/dTpa booster vaccinations, including those for adolescents. ○ The second dose of measles vaccination is only given at age 6 years in Ukraine: therefore, children under 6 years should receive a dose of MMR vaccine as soon as possible. ○ Three doses of Hepatitis B (day of birth, 2 months, 6 months) vaccine can be accepted. ○ Anti-tetanus toxin antibody concentrations may be determined 4 weeks after a single dose of a tetanus toxoid-containing age-appropriate combined vaccine (include poliomyelitis), to determine needs of further catch-up vaccination.
Screening:
<ul style="list-style-type: none"> ○ Tuberculosis testing should be offered to all and can be done using a skin test (TST) or blood test (IGRA) combined with other blood samples. ○ HIV serology (HIV-1/2) should be offered; especially in i) the absence of a reliable negative HIV test in the mother during pregnancy or/and ii) in the presence of potential exposers / risk factors (see also text)

- Hepatitis B serology should be offered in the absence of prior hepatitis B vaccination.
- Hepatitis C serology should be offered to all.

Information

- Give age-appropriate preventive information, inform about health services and cost coverage and where to go in case of an emergency (incl. emergency number 144 for vital emergencies).

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final draft

74 **Introduction**

75 With the invasion of Ukraine by the Russian Army in February 2022, refugees, of which the
76 majority are women and children, started fleeing the war to neighbouring countries. As only
77 few men are allowed to leave Ukraine, most child refugees are separated from their fathers.
78 While some refugees managed to leave early, others experienced attacks, hiding in bomb-
79 shelters and enduring a long and insecure journey. Even before the start of the current
80 escalation, the conflict in the eastern part of Ukraine has led to the internal displacement of
81 more than 200'000 children and many others have experienced attacks, e.g. on schools [1].
82 During transit, overcrowding, poor shelter, and vulnerability may further put refugees at
83 increased risk for infectious diseases [2, 3].

84

85 The Ukrainian national health system provides basic care free of charge, but access and
86 overall quality of care provided varies, especially also due to lack of resources [1]. Despite
87 great improvements over the last years, under-5-mortality rates are still more than double
88 those in Switzerland. Vaccination coverage has also improved over the last few years but is
89 variable in the country. Outbreaks of vaccine preventable diseases such as measles have
90 frequently been reported and circulating vaccine-derived poliovirus outbreaks have been
91 registered [4, 5] Multidrug resistant tuberculosis and high rates of hepatitis C are a concern.
92 The screening of pregnant women for human immune deficiency virus (HIV) as well as HIV-
93 mother-to-child-prevention programs are in place, but screening of pregnant woman for
94 hepatitis B and hepatitis C is inconsistent [6]. Hepatitis A also circulates in the population
95 with increasing prevalence in older age [7]. Newborn screening (such as for congenital
96 hypothyroidism) and weekly home visits by a nurse for newborns are offered. For older
97 children regular check-ups by paediatricians or general practitioners are routine and health
98 certificate cards are supposed to be brought to schools at the start of every school year [1].

99

100 In Switzerland, the temporary protection “Status S” was introduced on March 12, 2022
101 granting Ukrainians and people who had lived in Ukraine and cannot go back to their
102 countries of origin, a residency permit until the conflict is over and a return is possible.
103 Protection status S includes also social and medical assistance, school attendance, and the
104 permission to pursue gainful employment. Furthermore, travel and family reunion are
105 possible. Protection status S is renewable on an annual basis but becomes a B permit if a
106 return remains impossible after five years. In contrast to previous refugee waves, most
107 refugees will not stay at refugee centres over extended periods of time, as they are now

108 rapidly distributed to host families, organised by the Swiss refugee council and other
109 agencies. Host families will have to help guide their guests in seeking care and adapting to the
110 new situation, but also must stay attentive to their own needs, while hopefully providing a
111 warm, secure welcome.

112

113 Refugees are assigned to the Swiss cantons, which are in charge of their integration and
114 wellbeing. There they receive basic health insurance, and the cost of premiums and co-
115 payments (deductibles and retention fees) are covered.

116 (<https://www.sem.admin.ch/sem/en/home/sem/aktuell/ukraine-krieg.html>)

117

118 Armed conflicts directly and indirectly affect the rights of children, especially in relation to
119 health. The United Nations Convention on the Rights of the Child (1989) clearly outlines their
120 rights. By providing quality care, child health professionals play an essential role in
121 upholding and promoting human rights.

122

123 This document provides information regarding health issues that paediatricians and general
124 practitioners may face when caring for paediatric (here defined as all individuals <18 years of
125 age) refugees from Ukraine. The recommendations have made with a focus on Switzerland
126 but may well be used in other countries. As with any recommendation they may need to be
127 adapted to individual situations.

128

129 **Guideline development process**

130 A working group was convened among members of the Migrant Health Reference Group of
131 Paediatrics Switzerland and a previously established working group of Paediatric Infectious
132 Disease Group in Switzerland (PIGS) on March 9, 2022. A list of priority topics was
133 determined by the writing group. Additional external experts were approached for specific
134 topics. All authors were assigned sections with writing responsibilities. Virtual meetings were
135 held to discuss the recommendations in a modified Delphi process. Finally, all
136 recommendations were voted on by an online tool using survey Findmind by all co-authors.
137 The threshold for recommendations was met if > 80% voted for full agreement on an item.

138

139

140 **Language**

141 We estimate that not all Ukrainian refugees arriving in Switzerland will be able to communicate
142 either in a Swiss national language or in English. Most Ukrainians understand Ukrainian and
143 Russian, and Polish may be understood by some refugees as the language is close to Ukrainian.
144 Ideally, care is provided by healthcare providers fluent in these languages. In their absence,
145 professional interpreters are the gold standard. High quality interpreting in the presence of a
146 language barrier is essential in the provision of health care and may reduce harm and
147 unnecessary consultations and interventions. Health care workers can access interpreter
148 services through the following agencies: www.inter-pret.ch/Vermittlungsstellen, www.inter-pret.ch/services-dinterpretariat,
149 www.inter-pret.ch/agenzie-dinterpretariato. Unfortunately,
150 financial coverage of interpreting services in health care, has not generally been established in
151 Switzerland but the federal council has confirmed that non-medical support may be required
152 (which includes interpreters) which is then covered by basic health care insurance [8].
153 Volunteers may be an important additional help for short and less complex discussions. The
154 organisation of such volunteers is mainly cantonal and regional. Assessing and documenting
155 interpreter needs may be helpful prior to consultation and in the organisation of further
156 consultations.

157

158 **Recommendations**

- 159 1. In the absence of language-congruent care providers, professional interpreters should
160 ideally be used.
- 161 2. Ad hoc interpreting by healthcare staff or volunteers may be useful.
- 162 3. When organizing an interpreter through an agency, state the exact language and the level
163 of experience needed by the interpreter and clarify if Russian interpreting is acceptable.
- 164 4. If volunteers are used, explain to them the rules of interpreting (e.g., confidentiality,
165 interpreting what is said) and be aware of potential quality concerns.
- 166 5. When volunteers or family members interpret, try to, especially in case of potentially
167 sensitive issues, assess if full expression of concerns is possible for patients/caregivers.
- 168 6. Software can be used with precautions when no other options are available.
- 169 7. Avoid using minors for interpreting.

170

171 **General Paediatrics**

172 The consultation for children and adolescents from Ukraine takes into consideration the
173 following points: the general health and wellbeing of the child, adolescent, and the
174 accompanying person(s), the Ukrainian epidemiological and healthcare context, the
175 experience of war and exile, the implication of the Swiss context and psycho-social resources
176 to cope with the new situation. The "Newly arrived child in Switzerland" section in the Swiss
177 Child Health Booklet should be filled in, the New Arrivals checklist may serve as a guide
178 during consultations [2022.04.27-Migration Checklist-new-arrivals-Update-April-2022.pdf](https://www.paediatricschweiz.ch/2022.04.27-Migration_Checklist-new-arrivals-Update-April-2022.pdf)
179 ([paediatricschweiz.ch](https://www.paediatricschweiz.ch)).

180

181 As a first step, the need for urgent treatment or care needs to be assessed: acute health
182 problems, chronic diseases that need urgent attention, or the need for essential medications
183 (e.g. children with type 1 diabetes, HIV infection etc.) may warrant urgent action, as do
184 potential needs for isolation or protection. Enquire about previous health concerns and
185 curative and preventive care received (incl. level of care). Without going into details, ask
186 about the escape, date of arrival in Switzerland, previous vaccinations, any screening or
187 vaccination done during the escape or at a reception center, and screen for mental health
188 needs (see section below).

189

190 A complete age-adapted paediatric assessment according to paediatric checklists [9] should be
191 performed. The extent of preventive assessments, care and information received in Ukraine
192 may vary. Be aware of the nutritional state of the child, iron and calcium intake and needs for
193 Vitamin D.

194

195 Exile comes with massive changes rendering psychosocial aspects of particular importance,
196 such as, e.g., the overall psychosocial context, housing, financial needs, the legal status,
197 adaptation to the new environment, school, extracurricular activities, making of friends and
198 other social activities. It may be helpful to connect the families with volunteer organizations
199 and NGOs who give support or organize social events and to potentially involve a social
200 worker.

201 The change in family structure may put more weight on a single person's shoulders,
202 increasing the need for support (e.g., daycare, school meals). Due to the extreme
203 circumstances, some refugee parents/caregivers may be distressed to the point of seeing their

204 ability to care well for their children compromised. As stable, secure living conditions with
205 reliable, emotionally available adults (parent, relative, professional) are important, the mental
206 and physical health needs of the child's main caregiver(s) and needs for support need to be
207 assessed.

208 Useful information for refugees in Ukrainian may be found here:

209 <https://www.migesplus.ch/fr/sujets/ukraine>

210 **Recommendations**

- 211 8. Identify urgent health needs (e.g., acute illness, lack of essential medications for chronic
212 disease) and exclude needs for isolation/protection.
- 213 9. Ensure care for chronic conditions and developmental delays in coordination with
214 specialists and school professionals
- 215 10. Perform a thorough age-appropriate health check-up
- 216 11. Assess the psychosocial situation and adaptation to the new setting (living conditions,
217 finances, school, friends, social activities, childcare resources etc.) and need for
218 assistance.
- 219 12. Enquire about the caregiver's resources/ unmet needs to cope and fulfill the parental role
220 (e.g., emotional availability and stability, health problems, etc.)
- 221 13. Inform about national and local resources for migrants
- 222 14. Give age-appropriate prevention recommendations
- 223 15. Give information on the health system, on what to do in case of acute disease or an
224 emergency (incl. emergency phone number 144) and inform about costs covered.

225

226 **Vaccinations**

227 The main differences between the vaccination schedule in Ukraine and Switzerland are: The
228 second dose of measles, mumps, rubella (MMR) vaccination is only given at age 6 years,
229 booster doses for poliomyelitis vaccination are given as oral live-attenuated vaccines at age 6
230 years and to adolescents at age 14 years [10]. Bacille Calmette Guérin (BCG) vaccination is
231 universally recommended at birth. Vaccinations against pneumococci, meningococci,
232 varicella zoster virus, human papilloma virus (HPV), and tick-borne encephalitis are *not*
233 included in the Ukrainian basic immunization recommendations. Missing vaccination should
234 be administered as soon as possible.

235 A picture and translation of a Ukrainian vaccination chart is available on the webpage of
236 Paediatrics Switzerland <https://www.paediatricschweiz.ch/unterlagen/migration/>.

237

238 **Measles, mumps, rubella**

239 Optimal protection against measles, mumps, and rubella requires 2 doses of vaccine, with the
240 1st dose recommended at 9 months and the 2nd dose at 12 months of age in Switzerland. Since
241 MMR is recommended at 12 months and 6 years of age in the Ukraine, children under 6 years
242 of age are unlikely to be fully protected with 2 doses. Of note, only documented
243 immunizations are valid, and it should usually not be assumed that MMR has been
244 administered when there is no documentation available. Extra doses of MMR are not harmful,
245 because preexisting immunity will eliminate the attenuated vaccine viruses before they can
246 replicate.

247

248 **Recommendations**

- 249 16. Any child ≥ 9 months of age and adolescents without a documented MMR immunization
250 should receive a 1st dose of MMR in the absence of contraindications after arrival in
251 Switzerland. A 2nd dose should follow ≥ 1 month later at a minimum age of 12 months.
- 252 17. Any child ≥ 12 months of age and adolescents with 1 documented MMR immunization ≥ 1
253 month ago should receive a 2nd dose of MMR in the absence of contraindications after
254 arrival in Switzerland.
- 255 18. These recommendations also apply to individuals who have received 1 or more single
256 measles, mumps or rubella vaccinations until all 3 components have been administered at
257 least twice.
- 258 19. Serological investigations to determine specific immunity against measles, mumps or
259 rubella should *not* be applied routinely because of variable test sensitivity.

260 **Varicella**

261 Optimal protection against varicella requires a reliable history of the disease or 2 doses of
262 vaccine. When taking the history of previous varicella infection, it is important to ensure the
263 person asked understands the word varicella and is familiar with the disease. In Switzerland,
264 varicella immunization is recommended for all individuals 11-40 years of age not yet
265 immunized and without a reliable history of having had varicella. Furthermore, varicella
266 immunization is recommended before 11 years for certain risk groups [11] and those staying

267 in refugee centers [12]. Since varicella vaccination is not universally recommended in
268 Ukraine, children and adolescents are unlikely to be immunized.

269

270 **Recommendations**

- 271 20. Any child or adolescent ≥ 11 years of age without 2 documented varicella immunizations
272 should be asked whether they had “chickenpox”. Pictures of the disease may be helpful in
273 taking this history. If the disease history is uncertain or negative, a 1st dose of varicella
274 vaccine (or MMRV if indicated) should be administered in the absence of
275 contraindications. A 2nd dose should be given 4-6 weeks later.
- 276 21. Any child or adolescent ≥ 11 years of age with 1 documented varicella immunization ≥ 1
277 month ago should receive a 2nd dose in the absence of contraindications.
- 278 22. Any child over 9 months, who has not had “chickenpox” or 2 doses of varicella
279 immunization should be immunized with 2 doses if the following risk factors are present:
280 expected immunosuppression, nephrotic syndrome and severe atopic dermatitis, HIV
281 without immunosuppression; being a close contact to a person with named risk factors
282 [11, 13], or in case of a prolonged stay in a refugee center.
- 283 23. Serological investigations to determine specific immunity against varicella (VZV-IgG)
284 may be applied in cases of doubts about the varicella disease history as an alternative to 2
285 vaccinations.

286 **Hepatitis B**

287 The prevalence of chronic HBV infection in the general Swiss population is estimated to be
288 0.3% [14]. In children, the seroprevalence is unknown but likely to be very low.

289 Ukraine is considered as a country with intermediate HBV prevalence, but prevalence was
290 low among children with HBs antigen positivity below 0.5% [15]. Universal HBV
291 vaccination of infants is recommended in Ukraine at birth, 2 and 6 months of age and but
292 vaccination coverage rates have been shown to be low as part of an assessment in recent
293 serosurveys with broad regional variability ranging from 28 – 80% [10, 15].

294

295 **Recommendations**

- 296 24. In children with complete HBV vaccination according to the Ukrainian recommendation
297 no further immunisations are need.

- 298 25. In children with partial immunization according to Ukrainian recommendation catch-up
299 vaccination should be started so that 3 doses have been given with an interval of ≥ 4
300 months between 2nd and 3rd dose. Every previous dose counts.
- 301 26. In children with no previous or unknown HBV vaccination serological screening for anti-
302 HBsAg and anti HBc (infection); and quantitative anti-HBs (immunization) should be
303 done.
- 304 27. If the quantitative result of anti-HBs is ≥ 100 IU/l the child is considered fully immunized
305 and protected; no further action is needed. If anti-HBs is ≥ 10 but < 100 IU/l at least a
306 single booster dose against Hepatitis B is recommended. If an infection is excluded and
307 anti-HBs is negative a full immunization series against Hepatitis B is recommended.
- 308 28. In case of diagnosis of an acute or chronic HBV infection the patient should be referred
309 to a pediatric gastroenterologist and/ or infectious diseases specialist.
310

311 **Poliomyelitis**

312 Poliomyelitis is included in every booster in the Ukrainian vaccination schedule including until
313 the age of 14 years, which is different to the Swiss schedule where the last (4th) dose is
314 recommended at 4-7 years of age [10]. Due to suboptimal vaccination coverage in Ukraine,
315 poliomyelitis boosters are currently recommended for long-term travel to Ukraine [5]. For this
316 reason, Ukrainian children should be updated for poliomyelitis coverage to ensure that they will
317 be immunized according to their national vaccination schedule on return.
318

319 **Recommendations**

- 320 29. Include poliomyelitis vaccines in all indicated DTPa/dTpa booster vaccinations,
321 including those for adolescents.
- 322 30. If immunization documents are available, ensure that the patient has received at least 3
323 doses of poliomyelitis vaccine and complete if needed.
- 324 31. If immunization documents unavailable: if you do a complete catch up for DTPa/dTpa
325 (see below) include IPV for each dose.

326 **Other vaccines**

327 In Ukraine, immunizations against diphtheria (d, D), tetanus (T), pertussis (whole cell, not
328 acellular vaccine) are recommended in a 3+1 schedule at 2, 4, 6 and 18 months of age
329 followed by DT at 6 years of age and dT every 10 years thereafter [10]. Vaccination against

330 pneumococci, meningococci, varicella zoster virus, human papilloma virus (HPV), and tick-
331 born encephalitis are not included in the Ukrainian national immunization recommendation
332 and should be offered at appropriate ages following the Swiss immunization
333 recommendations [11]. Vaccination coverage against severe acute respiratory syndrome
334 coronavirus type 2 (SARS-CoV-2) was limited in Ukraine reaching 35% of the population
335 [16].

336

337 **Recommendations**

338 32. All documented vaccinations should be taken into account and updated according to the
339 Swiss immunization recommendations appropriate for age.

340 33. Serological investigations to determine specific immunity should *not* be used routinely
341 since their accuracy is usually not high enough to warrant the effort and expenses.

342 34. For determining the need for tetanus catch-up immunizations, anti-tetanus toxin antibody
343 levels may be determined 4 weeks after a single dose of a tetanus toxoid-containing age-
344 appropriate combined vaccine (i.e., DTaP-IPV based or dTpa-IPV). Anti-tetanus toxin
345 antibody levels may then be interpreted as follows:

346 ≥ 1000 IU/l: no further tetanus immunization is needed

347 ≥ 500 and <1000 IU/L: single additional dose 6 months after the first one

348 < 500 IU/L: two further doses 2 and 6 months after the first one

349 35. Alternatively, individuals can be considered as unimmunized and given a full course of
350 catch-up immunization. If significant local reactions occur during the immunization
351 series, anti-tetanus toxin antibody levels should be measured to investigate for over-
352 immunization and the immunization series should be terminated if levels are high (≥ 1000
353 IU/l).

354 36. As several vaccines recommended in Switzerland are not included in the Ukrainian
355 immunization schedule, these require catch-up (see Tables 1-3).

356 37. Covid-19 and influenza vaccinations should be offered following Swiss
357 recommendations.

358 **Tuberculosis**

359 TB is a rare disease in Switzerland with a yearly incidence of 5 / 100 000 compared to
360 Ukraine with an annual incidence of 73/100'000 [17]. In children and adolescents most TB
361 cases are found in individuals of foreign origin [18, 19]. In addition, the risk of TB exposure
362 may be increased in those living in refugee camps or exposed to crises caused by armed

363 conflict, forced population displacement, or natural disasters [20]. Previous Swiss
364 recommendations mentioned TB screening only in refugee children < 5 years of age, but more
365 recent evidence suggests that the prevalence is higher in children \geq 5 years [21] compared to
366 those below 5 years of age. In addition, screening and treatment of TB infection was shown to
367 be cost effective in children and adolescents [22, 23]. In children with fever, prolonged
368 respiratory symptoms or failure to thrive TB should be considered. The likelihood of TB
369 disease may also be estimated using the TB screen website [http://www.tb-](http://www.tb-screen.ch/app/intro.php)
370 [screen.ch/app/intro.php](http://www.tb-screen.ch/app/intro.php) which has an audio part in Ukrainian. Though mainly developed for
371 adults, it may also be used in adolescents. Be aware that sensitivity particularly early in the
372 disease may be limited as children more often have little or no symptoms [24, 25]

373

374 **Recommendations**

375 38. Screening for TB infection should be offered to all children and adolescents arriving from
376 Ukraine.

377 39. An interferon gamma release assay or a tuberculin-skin test (TST) should be used for
378 screening depending on availability of the test. As children and adolescents from Ukraine
379 have high rates of Bacillus Calmette-Guérin (BCG) vaccination, false positive TST
380 results may occur and therefore a TST cut-off of 10 mm and more should be considered
381 positive.

382 40. Measles vaccination may temporarily suppress the response to TB testing resulting in
383 false negative results: TST and IGRA should therefore be done simultaneously with
384 measles vaccination or delayed by 1 month after measles vaccination.

385 41. The following symptoms should trigger rapid evaluation for TB disease: persistent cough
386 (>2 weeks), unremitting cough, weight loss/failure to thrive, persistent (>1 week)
387 unexplained fever (>38°C), persistent, unexplained lethargy or reduced playfulness
388 activity reported by the parent/caregiver.

389 **Human immunodeficiency virus**

390 Ukraine has a rate of newly diagnosed HIV infections of 37.5 per 100'000, being the second
391 highest in Europe after the Russian Federation [26]. From 2018 to 2020, an average annual
392 number of 73 new HIV infections occurred due to mother-to-child transmission[26]. Since
393 2002, a nation-wide prevention-of-mother-to-child transmission (PMTCT) program has been
394 set up, with more than 97% of pregnant women now being tested for HIV at least once with
395 an opt-out policy [27, 28]. In 2018, 95% of pregnant women living with HIV in Ukraine

396 received antiretroviral therapy (ART). The vertical transmission rate is currently estimated at
397 3-4% [28]. Most vertically-infected children are asymptomatic in the first year after infection,
398 and a substantial proportion (up to 25% in some cohorts) of vertically-infected children
399 remain asymptomatic into adolescence [29]. Forced migration and war are known to increase
400 the risk of HIV through vulnerability and dysfunctional health systems[30]. In the eastern
401 provinces of Ukraine, access to and provision of care has been affected by conflict over an
402 extended period of time [31]. Early initiation of ART in all HIV-positive age groups has
403 consistently been demonstrated to improve long-term health outcomes and therefore routine
404 testing and referral are of individuals with positive tests are key [32] Informing about full
405 cost-coverage and a non-judgmental attitude against HIV from healthcare workers in
406 Switzerland may be worth mentioning when discussing HIV testing, as the need for unofficial
407 out-of-pocket payments and stigmatization have been reported as occurring in Ukraine [28]

408

409 **Recommendations**

- 410 42. HIV screening by serology (HIV-1/2) should offered; specially in i) the absence of a
411 reliable negative HIV test in the mother during pregnancy or/and ii) in the presence of
412 potential exposers / risk factors (also see text)
- 413 43. Refer to a paediatric HIV clinic urgently (< 1 week) in case of newly confirmed HIV or
414 in case of interrupted or lacking treatment, prior to restarting ART.
- 415 44. Adolescents on ART should be referred to a HIV clinic within 1 month for routine check-
416 up, addressing adherence and counselling and a potential treatment switch to a simple
417 course treatment.

418 **Hepatitis C**

419 In Switzerland, the hepatitis C virus (HCV) antibody prevalence is 0.7% in the general
420 population [33]. Ukraine has a considerable higher HCV prevalence estimated to be as high as
421 5% of the general population, of which 3.6% have chronic HCV[34]. Many Ukrainians do not
422 know their HCV serostatus and, subsequently, are not on treatment. Children in general
423 represent only a small proportion of the total of HCV infected individuals, with mother-to-
424 child transmission being responsible for most new cases. Spontaneous clearance of HCV
425 occurs mostly in the first 2 years of life in about 40% of infected children.

426

427 **Recommendations**

428 45. HCV screening by serology should be offered to all children and adolescents arriving
429 from Ukraine.

430 **Mental health issues**

431 For refugee families coming from a war zone, even if they have not themselves been directly
432 exposed to violence, it is important to detect the warning signs of psychological suffering.
433 These include sleep disorders, nightmares, behaviour changes, hypervigilance, bedwetting
434 again, anxiety attacks, mutism, in the paediatric patient as well as their main caregiver(s)
435 (**Table 4**). An empathic approach while giving overall support is necessary. This includes
436 being ready to listen when caregivers or children want to share, but not pushing anyone to talk
437 about hurtful issues, when they are not ready to do so. For potential questions to ask see
438 **Table 5**.

439 All refugee families are emotionally affected by the current situation, irrespectively of having
440 been exposed to violence directly or not. Stress is accumulated through the experience of war,
441 violence brought upon by other human beings, the loss of objects and family structure, and
442 aspects of exile [35].[19]. The absence of parental support may further aggravate the situation.
443 Experience of war and exile may aggravate pre-existing mental health issues. Good living
444 conditions, positive experiences and the feeling of security are very helpful to regain
445 wellbeing and trust in life. Children, adolescents, and family members may be reassured, that
446 reactions such as flashbacks, sweeting etc. are common in people with similar experiences. A
447 reduction of stressors, not staying alone, doing something that increases their overall
448 wellbeing and sense of security, distraction/ taking oneself out of a triggering situation, etc.
449 may help. In case of multiple symptoms, especially if they are strong, persistent and having an
450 important impact on the quality of life or if parents are unable to cope help should be
451 organized. Besides local psychiatric/psychologic services for children and adolescents, the
452 Swiss Red cross offers help for children and parents traumatized through war [36, 37] .
453 [https://www.redcross.ch/de/unser-angebot/unterstuetzung-im-alltag/ambulatorium-folter-
kriegsopfer](https://www.redcross.ch/de/unser-angebot/unterstuetzung-im-alltag/ambulatorium-folter-
454 kriegsopfer).

455 <https://www.migesplus.ch/publikationen/wenn-das-vergessen-nicht-gelingt>

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460 **Recommendations**

- 461 46. Search for signs of psychological distress (see **Table 4**).
- 462 47. Evaluate needs of child/adolescents/parents/caregivers for mental health support/
463 specialized care.
- 464 48. Enquire if the family/child/adolescent feel safe now, and if not evaluate appropriate next
465 steps and take action (e.g, contact social services or placing agencies, mental health
466 professionals, in case of crime, the police).

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468 The current recommendations have been formulated to support health care providers in
469 Switzerland in caring for recently arrived paediatric Ukrainian refugees. They are based on
470 best current knowledge and estimates, and once further evidence will be available, the
471 recommendations may require modifications.

final draft

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Age ¹	Primary vaccinations (intervals, in months from 0)				DTP _a /dTpa booster vaccinations (age, as per routine vaccination schedule)		
	0	1 ⁴	2	8	4-7 y	11-15 y	25 y
3-5 mo	DTP _a -IPV-Hib-HBV PCV-13		DTP _a -IPV-Hib-HBV PCV-13	DTP _a -IPV-Hib-HBV PCV-13	DTP _a -IPV	dTpa-IPV	dTpa
6-11 mo ^{2,3}	DTP _a -IPV-Hib-HBV PCV-13	DTP _a -IPV-Hib-HBV ⁵ PCV-13		DTP _a -IPV-Hib-HBV PCV-13	DTP _a -IPV	dTpa-IPV	dTpa
12 mo-3 y ^{2,3}	DTP _a -IPV-Hib-HBV PCV-13 MMR ⁵		DTP _a -IPV-Hib-HBV PCV-13 MMR ⁶	DTP _a -IPV HBV	DTP _a -IPV	dTpa-IPV	dTpa
4-7 y ^{2,3}	DTP _a -IPV-Hib-HBV MMR ⁵		DTP _a -IPV MMR ⁵ HBV	DTP _a -IPV HBV		dTpa-IPV	dTpa
8-10 y ^{6,7}	dTpa-IPV MMR ⁵ HBV		dTpa-IPV MMR ⁵ HBV	dT-IPV HBV		dTpa-IPV	dTpa
11-15 y	dTpa-IPV MMR ⁵ + VZV ⁸ HBV ⁹		dT-IPV MMR ⁵ + VZV ⁸	dT-IPV HBV ⁹			dTpa
≥ 16 y	dTpa-IPV MMR ⁵ + VZV ⁸		dT-IPV MMR ⁵ + VZV ⁸	dT-IPV			dTpa
HPV ¹⁰	11-14 y old girls 2 doses at 0, 4-6 mo 15-19 y old women 3 doses at 0, 2, 6 mo						

¹ For clarification of the age groups, e.g. 4-7 years means from the 4th birthday until the day before the child turns 8

²In infants and children up to 7 years of age, 1 or more doses of hepatitis B vaccination can be given using a hexavalent vaccine.

³In this age group, children can be vaccinated against hepatitis B with a 3-dose-schedule either using the hexavalent (0, 2, 8 mo) or the monovalent vaccine (0, 1, 6 mo).

⁴Interval of 1 mo for early protection

⁵Two doses of MMR vaccine are given from 9 months of age with an interval of at least 1 mo between doses. The second dose should be given ≥ 12 months of age. MMR vaccination should optimally be administered before the age of 2 y although it can be given at any age.

⁶Because of potentially severe local reactions, a vaccine containing reduced doses of diphtheria toxoid (d) and pertussis (p_a) is used in children age 8 years of age and older

⁷For children incompletely vaccinated against diphtheria and tetanus who haven't received any pertussis vaccine see table 3

⁸Vaccination against varicella is recommended for children aged 11-15 y without a history of chickenpox. A catch-up is recommended for adolescents and adults <40 y of age without a history of chickenpox.

⁹For this age group, a 2-dose-schedule (4-6 mo apart) can be used but only for HBV vaccines that are approved for this schedule

¹⁰This vaccine is recommended for female adolescents between 11-14 y of age and is given as a 2-dose-schedule. Unvaccinated young women 15-19 y of age should be given the vaccine using a 3-dose-schedule.

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Table 2 Vaccination schedule for *incompletely* immunised children and adolescents

Age	Number of previously received doses of DTP _a -IPV(-Hib) ¹ [schedule with intervals between doses in months]				
	1	2	3	4	5
6-11 mo	2 doses DTP _a -IPV-Hib [0, 6]	1 dose DTP _a -IPV-Hib			
12-14 mo	1 dose DTP _a -IPV-Hib, 1 dose DTP _a -IPV [0, 7]	1 dose DTP _a -IPV			
15 mo-3 y	3 doses DTP _a -IPV [0, 2, 8]	2 doses DTP _a -IPV [0, 6]	1 dose DTP _a -IPV		
4-7 y					
1 st dose <6 mo	3 doses DTP _a -IPV ² / DT + IPV [0, 2, 8]	3 doses DTP _a -IPV ² / DT + IPV [0, 2, 8]	2 doses DTP _a -IPV [0, 6]	1 dose DTP _a -IPV	
1 st dose ≥6 mo	3 doses DTP _a -IPV ² / DT + IPV [0, 2, 8]	2 doses DTP _a -IPV [0, 6]	1 dose DTP _a -IPV	-	
8-10 y					
1 st dose <6 mo	3 doses dT(p _a ²)-IPV [0, 2, 8]	3 doses dT(p _a ²)-IPV [0, 2, 8]	2 doses dTp _a -IPV [0, 6]	1 dose dTp _a -IPV	
1 st dose 6-12 mo	3 doses dT(p _a ²)-IPV [0, 2, 8]	2 doses dT(p _a ²)-IPV [0, 6]	1 dose dTp _a -IPV	-	
1 st dose ≥ 1 y	2 doses dT(p _a ²)-IPV [0, 6]	1 dose dTp _a -IPV	-	-	
11-15 y					
1 st dose <6 mo	3 doses dT(p _a ²)-IPV [0, 2, 8]	3 doses dT(p _a ³)-IPV [0, 2, 8]	3 doses dT(p _a ³)-IPV [0, 2, 8]	2 doses dT(p _a ³)-IPV [0, 6]	1 dose dTp _a -IPV
1 st dose 6-11 mo	3 doses dT(p _a ²)-IPV [0, 2, 8]	3 doses dT(p _a ³)-IPV [0, 2, 8]	2 doses dT(p _a ³)-IPV [0, 6]	1 dose dTp _a -IPV	-
1 st dose 1-3 y	3 doses dT(p _a ²)-IPV [0, 2, 8]	2 doses dT(p _a ³)-IPV [0, 6]	1 dose dTp _a -IPV	-	-
1 st dose ≥4 y	2 doses dT(p _a ²)-IPV [0, 6]	1 dose dTp _a -IPV			-

¹ HBV doses to be added as necessary for completion of a 2, 3 or 4-dose schedule (age-dependent)

² Only 2 (first and third) of these doses should contain the pertussis component

³ Only 1 (first) of these doses should contain the pertussis component

478 **Table 3: Recommended complementary immunisations**

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Age	Primary vaccinations (intervals, in months from 0)			482
	0	2	6	
2-4 y	MCV-ACWY ¹			483
5-19 y	MCV-ACWY ¹			484
≥11 y (males)	HPV	(HPV) ²	HPV ³	485
				486

487 ¹ Quadrivalent meningococcal vaccine containing conjugated serogroups A, C, W, and Y (MCV-ACWY)

488 ² those ≥15 years of age should receive 3 doses (0-2-6 month schedule)

489 ³ (4-) 6 months after the first dose for those 11-14 years of age; 4 months after the second dose for those ≥15 years of age

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491 **Table 4:** Signs of psychological distress

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Non-specific signs, especially in younger children	Other signs of suffering	Somatic symptoms (very frequent)
<ul style="list-style-type: none"> • Flashbacks/ recurring ideas • Sleeping disorders / nightmares, hypersomnia • Hypervigilance/ agitation/ excitement (child may seem very well) • Sadness, withdrawal, Loss of investment/vitality • Irritability • Separation anxiety • Death anxiety, excessive fears • Panic attacks • Identification with aggressor 	<p>Development:</p> <ul style="list-style-type: none"> • Arrested development • Regression (loss of language, enuresis...) <p>School/Social:</p> <ul style="list-style-type: none"> • Absenteeism/ School refusal • Difficulties with concentration, learning, school performance • Difficulties in social interactions, aggression, passivity, inhibition, mutism, separation anxiety • Avoidance 	<ul style="list-style-type: none"> • Pain (headache, abdominal pain etc.) • Enuresis/Encopresis • Malaise/Fainting • Frequent, unexplained accidents

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496 **Table 5:** Potential questions to guide discussion on mental health

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Traumatic exposure	<ul style="list-style-type: none"> • How did things go for your family, for parent/child? • Do you feel safe today? Your family?
Symptoms	<ul style="list-style-type: none"> • How did your child react to all this, is he/she improving? • Is the child different from before? • How are sleep, appetite, mood (sad/agitated)? Are functional disorders, enuresis... etc. present?
To the child	<ul style="list-style-type: none"> • Do you remember anything? Have you seen difficult things? Do you understand why you have left? • Were you/ are you still scared? • How is it going here, are you going to school, what do you like to do?
To the parent	<ul style="list-style-type: none"> • How are you? How do you feel? • Do you have flashbacks, nightmares, hypervigilance, sadness/despair, do you have news of family members/friends? • How do you think your child is reacting?

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500 **References**

- 501 1. Loboda, A., et al., *Child health care system in Ukraine*. Turk Pediatri Ars, 2020. **55**(Suppl 1): p. 98-104.
- 502
- 503 2. Brandenberger, J., et al., *A systematic literature review of reported challenges in health care delivery to migrants and refugees in high-income countries - the 3C model*. BMC Public Health, 2019. **19**(1): p. 755.
- 504
- 505
- 506 3. Brandenberger, J., et al., *The global COVID-19 response must include refugees and migrants*. Swiss Med Wkly, 2020. **150**: p. w20263.
- 507
- 508 4. World Health Organization and UNICEF. *WHO and UNICEF estimates of immunization coverage*. 2019 [cited 2022 22 March]; Available from:
- 509 https://www.who.int/immunization/monitoring_surveillance/data/ukr.pdf.
- 510
- 511 5. Polio Global Eradication Initiative. *Ukraine*. 2022 [cited 2022 March 20]; Available from:
- 512 <https://polioeradication.org/ukraine/>.
- 513 6. Ukrainian Legislation. *About the organization of outpatient obstetric and gynecological care in Ukraine*. 2022 [cited 2022 April 24]; Available from:
- 514 <https://zakon.rada.gov.ua/rada/show/v0417282-11?lang=en#Text>.
- 515
- 516 7. Moisseeva, A.V., et al., *Hepatitis A seroprevalence in children and adults in Kiev City, Ukraine*. J Viral Hepat, 2008. **15** Suppl 2: p. 43-6.
- 517
- 518 8. FMH. *Fachinformationen für Ärztinnen und Ärzte zur Betreuung von Schutzsuchenden aus der Ukraine*. 2022 March, 27]; Available from:
- 519 <https://www.fmh.ch/files/pdf27/fachinformationen-schutzsuchende-ukraine.pdf>.
- 520
- 521 9. Swiss Society of Paediatrics. *Checklisten Vorsorgeuntersuchungen*. Available from:
- 522 https://cdn.paediatrieschweiz.ch/production/uploads/2021/11/Checklist_Vorsorgeunt_Formular_2017_DE.pdf.
- 523
- 524 10. Ministry of Health of Ukraine. *National Vaccination Schedule*. 2018 [cited 2022 March 20]; Available from: <https://en.moz.gov.ua/vaccinations>.
- 525
- 526 11. Federal Office of Public Health. *Schweizer Impfplan*. 2022 [cited 2022 March 20]; Available from: <https://www.bag.admin.ch/bag/de/home/gesund-leben/gesundheitsfoerderung-und-praevention/impfungen-prophylaxe/schweizerischer-impfplan.html>.
- 527
- 528
- 529 12. Ehrenzeller Selina, et al. *Infektionskrankheiten und Impfungen bei Asylsuchenden*. 2019 [cited 2022 April 24]; Available from: <https://medicaforum.ch/de/detail/doi/smf.2019.08081>.
- 530
- 531 13. Bernhard, S., et al., *Guidance for testing and preventing infections and updating immunisations in asymptomatic refugee children and adolescents in Switzerland*. Paediatrica, 2016. **27**: p. 1-8.
- 532
- 533
- 534 14. Fretz, R., et al., *Hepatitis B and C in Switzerland - healthcare provider initiated testing for chronic hepatitis B and C infection*. Swiss Med Wkly, 2013. **143**: p. w13793.
- 535
- 536 15. Khetsuriani, N., et al., *Seroprevalence of hepatitis B virus infection markers among children in Ukraine, 2017*. Vaccine, 2021. **39**(10): p. 1485-1492.
- 537
- 538 16. World Health Organization. *WHO Coronavirus Dashboard*. 2022 [cited 2022 22 April]; Available from: <https://covid19.who.int/table>.
- 539
- 540 17. World Health Organization. *Global Tuberculosis Report 2021*. 2022 [cited 2022 April 2024]; Available from: <https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2021>.
- 541
- 542
- 543 18. Oesch Nemeth, G., et al., *Epidemiology of childhood tuberculosis in Switzerland between 1996 and 2011*. Eur J Pediatr, 2014. **173**(4): p. 457-62.
- 544
- 545 19. Fritschi, N., et al., *Pediatric Tuberculosis Disease during Years of High Refugee Arrivals: A 6-Year National Prospective Surveillance Study*. Respiration, 2021. **100**(11): p. 1050-1059.
- 546
- 547 20. Baauw, A., et al., *Health needs of refugee children identified on arrival in reception countries: a systematic review and meta-analysis*. BMJ Paediatr Open, 2019. **3**(1): p. e000516.
- 548
- 549 21. Boukamel, M., et al., *Prevalence of tuberculosis in migrant children in Switzerland and relevance of current screening guidelines*. Swiss Med Wkly, 2020. **150**: p. w20253.
- 550
- 551 22. Usemann, J., et al., *Cost-effectiveness of tuberculosis screening for migrant children in a low-incidence country*. Int J Tuberc Lung Dis, 2019. **23**(5): p. 579-586.
- 552
- 553 23. Shedrawy, J., et al., *Cost-effectiveness of the latent tuberculosis screening program for migrants in Stockholm Region*. Eur J Health Econ, 2021. **22**(3): p. 445-454.
- 554
- 555 24. Fritschi, N., et al., *Subclinical Tuberculosis in Children: Diagnostic Strategies for Identification Reported in a 6-year National Prospective Surveillance Study*. Clin Infect Dis, 2022. **74**(4): p. 678-684.
- 556
- 557
- 558 25. Schneeberger Geisler, S., et al., *Screening for tuberculosis in asylum seekers: comparison of chest radiography with an interview-based system*. Int J Tuberc Lung Dis, 2010. **14**(11): p. 1388-94.
- 559
- 560

- 561 26. European Center for Disease Prevention and Control (ECDC) and World Health Organization
562 Regional Office for Europe. *HIV/AIDS surveillance in Europe*. 2021 [cited 2022 March 20];
563 Available from: [https://www.ecdc.europa.eu/sites/default/files/documents/2021-](https://www.ecdc.europa.eu/sites/default/files/documents/2021-Annual_HIV_Report_0.pdf)
564 [Annual_HIV_Report_0.pdf](https://www.ecdc.europa.eu/sites/default/files/documents/2021-Annual_HIV_Report_0.pdf).
- 565 27. Malyuta, R., et al., *Prevention of mother-to-child transmission of HIV infection: Ukraine*
566 *experience to date*. Eur J Public Health, 2006. **16**(2): p. 123-7.
- 567 28. World Health Organization. *Report on 2018–2019 pre-validation assessment of elimination of*
568 *mother-to-child transmission of HIV and syphilis in Ukraine*. 2020 [cited 2022 April 24];
569 Available from: [https://apps.who.int/iris/bitstream/handle/10665/336180/WHO-EURO-2020-](https://apps.who.int/iris/bitstream/handle/10665/336180/WHO-EURO-2020-1265-41015-55677-eng.pdf?sequence=1&isAllowed=y)
570 [1265-41015-55677-eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/336180/WHO-EURO-2020-1265-41015-55677-eng.pdf?sequence=1&isAllowed=y).
- 571 29. Kohns Vasconcelos, M., et al., *Medical history and clinical examinations are insufficient to*
572 *exclude vertical human immunodeficiency virus transmission in healthy, at-risk adolescents*.
573 Acta Paediatr, 2019. **108**(6): p. 994-997.
- 574 30. UNAIDS. *AIDS and conflict: a growing problem worldwide*. 2004 [cited 2022 April 24];
575 Available from: <https://www.unhcr.org/412ef6452.pdf>.
- 576 31. Protection Cluster Ukraine and Health Cluster Ukraine. *Exploring access to health care*
577 *services in Ukraine: a protection and health perspective*. . 2019 [cited 2022 24 April];
578 Available from: [https://reliefweb.int/sites/reliefweb.int/files/resources/2019-07-Exploring-](https://reliefweb.int/sites/reliefweb.int/files/resources/2019-07-Exploring-access-to-health-care-services-in-Ukraine_ENG_Final.pdf)
579 [access-to-health-care-services-in-Ukraine_ENG_Final.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/2019-07-Exploring-access-to-health-care-services-in-Ukraine_ENG_Final.pdf).
- 580 32. Violari, A., et al., *Early antiretroviral therapy and mortality among HIV-infected infants*. N Engl
581 J Med, 2008. **359**(21): p. 2233-44.
- 582 33. Bregenzer, A., et al., *Hepatitis C virus elimination in Swiss opioid agonist therapy programmes*
583 *- the SAMMSU cohort*. Swiss Med Wkly, 2021. **151**: p. w20460.
- 584 34. Health Cluster Ukraine. *Ukraine Public Health Situation Analysis*. 2022 [cited 2022 March 20];
585 Available from: [https://reliefweb.int/sites/reliefweb.int/files/resources/ukraine-phsa-shortform-](https://reliefweb.int/sites/reliefweb.int/files/resources/ukraine-phsa-shortform-030322.pdf)
586 [030322.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/ukraine-phsa-shortform-030322.pdf).
- 587 35. Lava, S.A.G., et al., *Please stop the Russian-Ukrainian war - children will be more than*
588 *grateful*. Eur J Pediatr, 2022.
- 589 36. Overbeck Ottino von, S., *Entre jeu et réalité: psychothérapie d'enfants exposés à des*
590 *violences collectives*, in *Clinique de l'exil: chroniques d'une pratique engagée*. , G.R.B.S. O.,
591 Editor. 2009, Chêne-Bourg, Georg. p. pp 73-86.
- 592 37. Overbeck Ottino von, S., *Psychological approaches in perinatal health for refugees : an ethno-*
593 *psychoanalytic perspective*, in *Parenthood and Immigration in Psychoanalysis: Shaping the*
594 *Therapeutic Setting*., M.a. Welsh, Editor. 2022, Routledge p. 60-78.
- 595