Summary of Standards for Paediatric Emergency Care in EMS

Expert Consensus Report for the Western Cape

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SUMMARY OF STANDARDS FOR PAEDIATRIC EMERGENCY CARE IN EMERGENCY MEDICAL SERVICES

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NOTE: This document reports the consensus of an expert group convened by the Western Cape (WC) Department of Health (DoH). The standards recommended in this report have been presented to and reviewed by the Executive Committee of the WC DoH. Whilst the report is considered a valuable expert consensus document, it has NOT been approved for implementation and this document does NOT represent WC DoH official policy.

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STANDARDS FOR EMERGENCY CARE OF CHILDREN IN EMS
(Note: Numbering is maintained as per Full Standards Report)

STAFFING

201. All paediatric patients, in the pre-hospital environment, must be managed by the minimum of an Intermediate Life Support (ILS) crew member.

202. Basic Ambulance Assistants (BAA) must work under supervision at all times with all ambulances crewed with at least one Intermediate Life Support practitioner (with the exception of Advanced Life Support (ALS) ambulances).

203. A medical practitioner with pre-hospital expertise must be available for consultation 24 hours a day.

TRAINING AND CONTINUED PROFESSIONAL DEVELOPMENT

204. All emergency care practitioners must be competent in assessing, managing and safely transporting common paediatric emergencies to the nearest most appropriate medical facility. The assessment and appropriate treatment must be in accordance with prevailing, evidenced-based, best-practice protocols.

205. All emergency care practitioners must be competent in basic paediatric/neonatal life support.

206. ALS practitioners must be competent in advanced life support procedures for neonates and paediatrics.

207. In order to maintain competency in the emergency management of the critically ill child, all operational emergency medical services (EMS) practitioners (BLS, ILS and ALS) must be recertified as prescribed by designated courses.

208. Formal resuscitation training must be repeated at least as frequently as required by the governing body for that qualification.

209. The Human Resource Development (HRD) training department must structure their programmes to allocate at least 5 CPD points annually to paediatric emergency topics.

210. As per Skills Development Policy, all staff must be given the opportunity to attend approved and designated training courses which are required for competency in the assessment and management of paediatric emergencies during normal hours.

211. All ambulance bases (with the exception of satellite stations) must have access to suitable electronic teaching aids and audio-visual projection facilities as well as the required paediatric training equipment (e.g. paediatric manikins, cardiac monitor, rhythm simulator).

212. At least one paediatric case must be presented at every mortality and morbidity forum.

213. EMS staff must be aware of the concept, and the potential psychological benefits, of family presence during the resuscitation of a child.
CLINICAL CARE PROTOCOLS AND SCOPE OF PRACTICE

214. Management of paediatric emergencies must be guided by accepted up-to-date evidence-based regional and national resuscitation guidelines (e.g. WC EM Guidance, APLS).

215. All emergency care practitioners must have access to the latest protocols for their respective qualification as prescribed by the Health Professional Council of South Africa (HPCSA).

TRIAGE

216. All emergency care practitioners must be trained in the application of the South African Triage Scale (SATS).

DRUGS AND RESOURCES

217. All medications approved for use by emergency care practitioners by the HPCSA must be readily available.

218. Pre-calculated dose guidelines and approved weight formulae for children of all ages must available in the form of charts/cards and length-based drug dosage tapes.

219. Up-to-date, evidenced-based guidelines pertaining to paediatric emergency care must be available to all emergency care practitioners (e.g. HPCSA ALS, ILS and BLS guidelines, EM guidelines 2013).

220. A portable cooler-box/bag must be available for the storage of medications that need to be kept refrigerated on the ambulance (e.g. Lorazepam).

221. A dedicated medications fridge must be available for the on-site storage of medications that need to be kept refrigerated.

EQUIPMENT

222. Equipment to manage paediatric emergencies appropriate to qualification must be available in all ambulances.

SECURING OF CHILDREN FOR TRANSPORT

223. All equipment necessary for the safe transport and securing/immobilising paediatric patients of all ages must be available (e.g. car seats, transport incubators, immobilisations devices).

224. Guidance must be available for securing patients using mechanisms other than in stretchers.

225. Unless it is in the patient’s best interests, no baby, infant or child must be transported or transferred in the carer’s arms – such patients must be appropriately secured at all times. Unstable babies must never be put into kangaroo care for transportation.

226. Children must not share stretchers in ambulances.
TRANSFERS AND TRANSPORT

227. Retrieval teams must be available for the transfer of critically ill children and neonates.

228. When requesting transport of critically ill children, the referring facility must ensure that the severity of the child’s condition is communicated effectively to the call-taker at the EMS Communications Centre (including, as a minimum, triage colour, vitals, special equipment, urgency and level of EMS crew required).

229. During patient handovers effective verbal and written communication must take place between EMS practitioners and doctors from receiving and referring ECs. The DeMIST handover procedure is the minimum handover that must occur.

230. Prior to departure, the EMS crew responsible for the management of the patient must independently assess the child’s clinical condition and suitability for transport and familiarise themselves with the treatment already undertaken.

231. The EMS Communications Centre or EMS crew (if able) must notify the receiving EC of the estimated time of arrival and the condition of, and medical interventions initiated in, critically ill children prior to their arrival at the EC (if not already informed).

232. For all transports and transfers of critically ill children, a clearly defined communication system (trunking radio/telephone) must be available between the EMS crew effecting the transfer and the medical team receiving the patient.

233. EMS crews that do not feel comfortable effecting the transport of a critically ill child (due to lack of necessary equipment or suitable qualifications) must voice their concerns to the referring physician so that the referring physician can initiate further treatment to stabilise the patient and/or arrange alternative transport with a more qualified EMS crew. The EMS crew must help facilitate communication with the EMS Communications Centre in order to expedite transport of the child with an appropriate EMS resource.

234. Critically ill paediatric patients must not be conveyed along with adult patients for the purposes of inter-facility transfers unless it is in the child’s best interests to do so.

235. Critically ill or injured paediatric/neonatal patients who fit the criteria of the Paediatric Emergency Callout Pathway protocol must be transported by the Paediatric Flying Squad (PFS) or a suitably equipped ALS crew if PFS is not available.

236. All emergency care practitioners must be aware of the closest most appropriate medical facility to which paediatric emergencies must be transported.

237. In the absence of specific protocols (e.g. Paediatric Burns Referral Guidelines, Paediatric Polytrauma Referral Guidelines) EMS personnel must base the destination medical facility on the patient’s initial on-scene triage code.

238. To ensure the effective disposition of paediatric patients, pre-hospital EMS referral guidelines must be easily accessible to all EMS staff and ECs.

239. Any Advanced Life Support Paramedic tasked with effecting the inter-facility transport of a critically ill child or neonate must be proficient and up to date with advanced life support skills and knowledge for children and neonates.
240. No EC may refuse to assess and accept a child delivered by an ambulance, regardless of the child’s geographical origin or triage code.

**EMERGENCY MEDICAL DISPATCH**

241. In order for them to identify the possibility of a life-threatening paediatric emergency, EMS call-takers must be of a suitably trained professional level that includes their having the ability to interrogate the caller and utilise algorithmic template/questions.

242. Emergency Medical Dispatchers (EMDs) must correctly identify possible paediatric life-threatening emergencies and dispatch the nearest most appropriate EMS resource within the pre-defined acceptable time-frame.

243. EMDs must be aware of the triage categories of the South African Triage Scale and use the triage category in conjunction with the Paediatric Emergency Callout Pathway protocol to correctly identify the most appropriate resource to utilise when dispatching the inter-facility transport of critically ill or injured children.

244. Operational crews must have an easily accessible channel of communication whereby they can request expert consultation from an EMS Emergency Doctor on call or a Doctor at the receiving medical facility.

245. EMS call-takers must be able to give pre-arrival basic emergency first-aid instructions to callers in order to help provide the necessary assistance to the patient prior to the arrival of EMS crews.

246. Children less than one year old must not automatically be made Priority 1 (P1).

**CHILD- AND FAMILY-FRIENDLINESS**

247. A caregiver must be allowed to travel with the child – this can apply to young patients up to the age of 18 years.

248. Children must not be transported in same ambulance as adult emergency patients unless it is in the child’s best interests to do so.

249. Where this cannot be avoided, child patients must not be transported with the following types of patients (unless it is in their best interests to do so):

- those with traumatic injuries;
- those with drug, alcohol or psychiatric problems;
- those with the risk of infectious disease risk (e.g. TB, viral illnesses);
- unstable adults requiring en route stabilisation; or
- those with any other distressing or potentially harmful conditions.

250. EMS staff must be aware of simple reassurance and distraction techniques to reduce stress to the child.
PATIENT SAFETY AND CONTINUOUS QUALITY IMPROVEMENT

251. EMS staff and management must identify patient-safety priority areas for paediatric patients and implement improvements using established tools such as Plan-Do-Study-Act (PDSA).

252. Regular data must be gathered on key paediatric quality and safety indicators.

253. Handovers must be standardised so that all key information is passed on.

254. All EMS staff and management must be made aware of the propensity for error in the pre-hospital environment:
   254.1 Practical aspects of error recognition and containment in the pre-hospital environment.
   254.2 Common error producing conditions in the pre-hospital environment.
   254.3 Recognition of biases in critical thinking in themselves and their colleagues.

255. Paediatric-specific medication safety measures such as age/weight-appropriate dosing schedules and/or paediatric drug-dose calculators must be in place.

256. Infection control measures in keeping with both national and international standards must be adhered to in the pre-hospital environment (e.g. strict hand-hygiene, safe distance between patients, not transporting infectious patients with healthy patients).

257. All districts must have a fully functional CQI programme in place to provide ongoing monitoring of quality care and compliance with patient-safety standards.

258. Policies for reporting, evaluating and learning from adverse incidents, medication errors, inappropriate referrals and other patient-safety events must be in place.

259. All districts must hold monthly mortality and morbidity meetings.

260. Paediatric Patient Report Form reviews must be conducted regularly to evaluate actual clinical practice and adherence to clinical guidelines and standards.