

1 The Emergency Medical Services Authority has illustrated changes to the original text in  
2 the following manner:

- 3 • Additions to the original text from 45-day comment period are shown underlined
- 4 • Deletions to the original text from 45-day comment period are shown in ~~strikeout~~

5  
6  
7 **California Code of Regulations**  
8 **Title 22. Social Security**  
9 **Division 9. Prehospital Emergency Medical Services**  
10 **Chapter 7.2 Stroke Critical Care System**  
11

12  
13 **ARTICLE 1. DEFINITIONS**

14  
15 **§ 100270.200. Acute Stroke Ready Hospital**

16 “Acute stroke-ready hospitals” or “Satellite stroke centers” means a hospital able to  
17 provide the minimum level of critical care services for stroke patients in the emergency  
18 department, and are paired with one or more hospitals with a higher level of stroke  
19 services.  
20

21 Note: Authority cited: Sections 1797.94, 1797.103, 1797.107, and 1798.150, Health and  
22 Safety Code. Reference: Sections 1797.103 and 1797.176, Health and Safety Code.  
23

24 **§ 100270.201. Board-certified**

25 “Board-certified” means a physician who has fulfilled all the Accreditation Council for  
26 Graduate Medical Education (ACGME) requirements in a specialty field of practice, and  
27 has been awarded a certification by an American Board of Medical Specialties (ABMS)  
28 approved program.  
29

30 Note: Authority cited: Sections 1797.107 and 1798.150, Health and Safety Code.  
31 Reference: Sections 1797.103 and 1797.176, Health and Safety Code.  
32

33 **§ 100270.202. Board-eligible**

34 “Board-eligible” means a physician who has applied to a specialty board examination  
35 and has completed the requirements and ~~received permission~~ is approved to take the  
36 examination by ABMS. Board certification must be obtained within the allowed time by  
37 ABMS from the first appointment.  
38

39 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
40 Code. Reference: Sections 1797.103 and 1797.176, Health and Safety Code.  
41

42 **§ 100270.203. Comprehensive Stroke Center**

43 “Comprehensive stroke center” means a hospital with specific abilities to receive,  
44 diagnose and treat ~~the most complex~~ all stroke cases and provide the highest level of  
45 care for stroke patients.  
46

15-Day Public Comment  
July 10 – July 25, 2018

47 Note: Authority cited: Sections 1797.94, 1797.103, 1797.107, and 1798.150, Health and  
48 Safety Code. Reference: Sections 1797.103 and 1797.176, Health and Safety Code.

49

50 **§ 100270.204. Clinical Stroke Team**

51 “Clinical stroke team” means a team of healthcare professionals who provide care for the  
52 stroke patient and may include, but is not limited to, neurologists, neuro-  
53 interventionalists, neurosurgeons, anesthesiologists, emergency medicine physicians,  
54 registered nurses, advanced practice nurses, physician assistants, pharmacists, and  
55 technologists.

56

57 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
58 Code. Reference: Sections 1797.103 and 1797.176, Health and Safety  
59 Code.

60

61 **§ 100270.205. Emergency Medical Services Authority**

62 “Emergency medical services authority” or “EMS Authority” means the department in  
63 California that is responsible for the coordination and the integration of all state activities  
64 concerning emergency medical services (EMS).

65

66 Note: Authority cited: Sections 1797.107 and 1797.54, Health and Safety Code.  
67 Reference: Sections 1797.100, and 1797.103, Health and Safety  
68 Code.

69

70 **§ 100270.206. Local Emergency Medical Services Agency**

71 “Local emergency medical services agency” or “local EMS agency” means the agency,  
72 department, or office having primary responsibility for administration of emergency  
73 medical services in a county and which is designated pursuant Health and Safety Code  
74 section 1797.200.

75

76 Note: Authority cited: Sections 1797.94, 1797.107, 1797.176, and 1797.200, Health and  
77 Safety Code. Reference: Section 1797.94, Health and Safety  
78 Code.

79

80 **§ 100270.207. Primary Stroke Center**

81 “Primary stroke center” means a hospital that ~~stabilizes and~~ treats acute stroke patients,  
82 ~~providing initial acute care, and~~ identify patients who may benefit from transfer to one or  
83 ~~more a~~ higher level of care. ~~Centers when clinically warranted.~~

84

85 Note: Authority cited: Sections 1797.94, 1797.103, 1797.107, and 1798.150, Health and  
86 Safety Code. Reference: Sections 1797.103 and 1797.176, Health and Safety  
87 Code.

88

89 **§ 100270.208. Protocol**

90 “Protocol” means a predetermined, written medical care guideline, which may include  
91 standing orders.

92

93 Note: Authority cited: Sections 1797.107, 1797.176, 1797.220, and 1798.150, Health

94 and Safety Code. Reference: Sections 1797.103 and 1797.176, Health and Safety Code.  
95

96 **§ 100270.209. Quality Improvement**

97 “Quality improvement” or “QI” means methods of evaluation that are composed of a  
98 structure, process, and outcome evaluations which focus on improvement efforts to  
99 identify causes of problems, intervene to reduce or eliminate these causes, and take  
100 steps to correct the process and recognize excellence in performance and delivery of  
101 care.

102  
103 Note: Authority cited: Sections 1797.103, 1797.107, 1797.174, 1797.176 and 1798.150  
104 Health and Safety Code. Reference: Sections 1797.174, 1797.202, 1797.204, 1797.220  
105 and 1798.175, Health and Safety Code.

106  
107 **§ 100270.210. Stroke**

108 “Stroke” means a condition of impaired blood flow to a patient’s brain resulting in brain  
109 dysfunction, most commonly through vascular occlusion or hemorrhage.

110  
111 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
112 Code. Reference: Sections 1797.103 and 1797.176, Health and Safety Code.

113  
114 **§ 100270.211. Stroke Call Roster**

115 “Stroke call roster” means a schedule of licensed health professionals available twenty-  
116 four (24) hours a day, seven (7) days a week for the care of stroke patients.

117  
118 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
119 Code. Reference: Sections 1797.103 and 1797.220, Health and Safety Code.

120  
121 **§ 100270.212. Stroke Care**

122 “Stroke care” means emergency transport, triage, diagnostic, acute intervention and  
123 other acute care services for stroke patients that potentially require immediate medical  
124 or surgical intervention treatment, and may include education, primary prevention,  
125 acute intervention, acute and subacute management, prevention of complications,  
126 secondary stroke prevention, and rehabilitative services.

127  
128 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
129 Code. Reference: Sections 1797.103, 1797.176, and 1797.220, Health and Safety  
130 Code.

131  
132 **100270.213. Stroke Critical Care System**

133 “Stroke critical care system” means a subspecialty care component of the EMS system  
134 developed by a local EMS agency. This critical care system links prehospital and  
135 hospital care to deliver optimal treatment to the population of stroke patients who  
136 ~~potentially require immediate medical or surgical intervention.~~

137  
138 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
139 Code. Reference: Sections 1797.103, 1797.176, and 1797.220, Health and Safety

140 Code.

141

142 **§ 100270.214. Stroke Medical Director**

143 “Stroke medical director” means a board-certified physician ~~designated by the hospital~~  
144 who is in neurology or neurosurgery or another board with sufficient experience and  
145 expertise dealing with cerebrovascular disease as determined by the hospital  
146 credentialing committee and responsible for the stroke service, performance  
147 improvement, and patient safety programs related to a stroke critical care system.

148

149 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
150 Code. Reference: Sections 1797.103, 1797.176, and 1797.220, Health and Safety  
151 Code.

152

153 **§ 100270.215. Stroke Program Manager/Coordinator**

154 “Stroke program manager/coordinator” means a registered nurse or qualified individual  
155 designated by the hospital with the responsibility for monitoring and evaluating the care  
156 of stroke patients and the coordination of performance improvement and patient safety  
157 programs for the stroke center in conjunction with the stroke medical director.

158

159 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
160 Code. Reference: Sections 1797.103, 1797.176, and 1797.220, Health and Safety  
161 Code.

162

163 **§ 100270.216. Stroke Program**

164 “Stroke program” means an organizational component of the hospital specializing in  
165 the care of stroke patients.

166

167 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
168 Code. Reference: Sections 1797.103, 1797.176, and 1797.220, Health and Safety  
169 Code.

170

171 **§ 100270.217. Stroke Team**

172 “Stroke team” means the clinical stroke team, support personnel, and administrative  
173 staff.

174

175 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
176 Code. Reference: Sections 1797.103, 1797.176, and 1797.220, Health and Safety  
177 Code.

178

179 **§ 100270.218. Telehealth**

180 “Telehealth” means the mode of delivering health care services and public health via  
181 information and communication technologies to facilitate the diagnosis, consultation,  
182 treatment, education, care management, and self-management of a patient’s health  
183 care while the patient is at the originating site and the health care provider is at a  
184 distant site.

185

186 Note: Authority cited: Sections 1797.107, 1797.176, and 1798.150, Health and Safety  
187 Code. Reference: Sections 1797.103, 1797.176, and 1797.220, Health and Safety  
188 Code. California Business and Professions Code Sec. 2290.5

189  
190 **§ 100270.219. Thrombectomy-Capable Stroke Center**  
191 “Thrombectomy-capable stroke center” means a primary stroke center with the ability  
192 to perform mechanical thrombectomy for the ischemic stroke patient when clinically  
193 warranted.

194  
195 **ARTICLE 2. LOCAL EMS AGENCY STROKE CRITICAL CARE SYSTEM**  
196 **REQUIREMENTS**

197  
198 **§ 100270.220. Stroke Critical Care System Plan Approval.**

- 199  
200 (a) The local EMS agency may develop and implement a stroke critical care system.  
201  
202 (b) A stroke critical care system that starts after the effective date of these regulations  
203 shall have the Stroke Critical Care System Plan approved by the EMS Authority prior  
204 to implementation.  
205  
206 (c) The Stroke Critical Care System Plan submitted to the EMS Authority shall  
207 include, at a minimum, all the following components:  
208  
209 (1) The names and titles of the local EMS agency personnel who have a role in a  
210 stroke critical care system.  
211  
212 (2) Verification of agreements with hospitals for designation of stroke facilities with a  
213 list of stroke hospital ~~contracts~~ agreements with expiration dates.  
214  
215 (3) A description or a copy of the local EMS agency’s stroke patient identification  
216 and destination policies.  
217  
218 (4) A description or a copy of the method of field communication to the receiving  
219 hospital-specific to stroke patients, designed to expedite time-sensitive treatment on  
220 arrival.  
221  
222 (5) A description or a copy of the policy that facilitates the inter-facility transfer of  
223 stroke patients.  
224  
225 (6) A description of the method of data collection from the EMS providers  
226 and designated stroke hospitals to the local EMS agency and the EMS  
227 Authority.  
228  
229 (7) A copy of all written agreements for coordination of stroke transport across  
230 LEMSA lines, with neighboring local EMS agencies to provide stroke care.  
231  
232

15-Day Public Comment  
July 10 – July 25, 2018

- 233 (8) A description of the integration of stroke into an existing quality improvement  
234 committee or a description of any stroke-specific quality improvement committee.  
235
- 236 (9) A description of programs to conduct or promote public education specific to stroke.  
237
- 238 (d) The EMS Authority shall, within 30 days of receiving a request for approval,  
239 notify the requesting local EMS agency in writing of approval or disapproval of its  
240 Stroke Critical Care System Plan. If the Stroke Critical Care System Plan is  
241 disapproved, the response shall include the reason(s) for the disapproval and any  
242 required corrective action items.  
243
- 244 (e) The local EMS agency shall provide an amended plan to the EMS Authority  
245 within 60 days of receipt of the disapproval letter.  
246
- 247 (f) The local EMS agency currently operating a stroke critical care system  
248 implemented before the effective date of these regulations, shall submit to the EMS  
249 Authority a Stroke Critical Care System Plan as an addendum to its next annual EMS  
250 plan update, or within 180 days of the effective date of these regulations, whichever  
251 comes first.  
252
- 253 (g) Any stroke center designated by the local EMS agency before implementation  
254 of these regulations may continue to operate. Before re-designation by the local  
255 EMS agency at the next regular interval, stroke centers shall be re-evaluated to meet  
256 the criteria established in these regulations.  
257
- 258 (h) No health care facility shall advertise in any manner or otherwise hold itself out to  
259 be affiliated with a stroke critical care system or a stroke center unless they have been  
260 designated by the local EMS agency, in accordance with this Chapter.  
261

262 Note: Authority cited: Sections 1797.103, 1797.105, 1797.107, 1797.173, 1797.176,  
263 1797.220, 1797.250, 1798.150, 1798.170, and 1798.172, Health and Safety Code.  
264 Reference: Sections 1797.105, 1797.176, and 1797.220, Health and Safety Code.  
265

266 **§ 100270.221. Stroke Critical Care System Plan Updates**  
267

- 268 (a) The local EMS agency shall submit an annual update of its Stroke Critical  
269 Care System Plan, as part of its annual EMS plan submittal, which shall include,  
270 at a minimum, all the following:  
271
- 272 (1) Any changes in a stroke critical care system since submission of the prior  
273 annual plan update or the Stroke Critical Care System Plan addendum.  
274
- 275 (2) The status of the Stroke Critical Care System Plan goals and objectives.  
276
- 277 (3) Stroke critical care system performance improvement activities.  
278

279 (4) The progress on addressing action items and recommendations provided by the  
280 EMS Authority within the Stroke Critical Care System Plan or status report approval  
281 letter, if applicable.

282  
283 Note: Authority cited: Sections 1797.103, 1797.107, 1797.176, 1797.250, 1797.254,  
284 1798.150, and 1798.172, Health and Safety Code. Reference: Sections 1797.176,  
285 1797.220, 1797.222, and 1798.170, Health and Safety Code.

286  
287 **ARTICLE 3. PREHOSPITAL STROKE CRITICAL CARE SYSTEM REQUIREMENTS**

288  
289 **§ 100270.222. EMS Personnel and Early Recognition**

290  
291 (a) The local EMS agency shall ensure that ~~prehospital stroke assessment and~~  
292 ~~treatment training is available~~ establish prehospital care protocols related to the  
293 early recognition, assessment, treatment, and transport of stroke patients for  
294 prehospital emergency medical care personnel as determined by the local EMS  
295 agency.

296  
297 ~~(b) The local EMS agency shall require the use of a validated prehospital stroke-~~  
298 ~~screening algorithm for early recognition and assessment.~~

299  
300 ~~(e)~~(b) The local EMS agency's protocols for the use of online medical direction shall  
301 be used in conjunction with transfer to the most appropriate stroke center utilized for  
302 suspicious or complex findings.

303  
304 ~~(d)~~(c) The prehospital treatment policies for stroke-specific basic life support  
305 (BLS), advanced life support (ALS), and limited advanced life support (LALS)  
306 shall be developed according to the scope of practice and local accreditation.

307  
308 ~~(e)~~(d) Prehospital findings of suspected stroke patients, as defined by the local EMS  
309 agency, will be communicated to a hospital stroke center of care ~~facility~~ in advance of  
310 arrival, according to the local EMS agency's Stroke Critical Care System Plan.

311  
312 Note: Authority cited: Sections 1797.92, 1797.103, 1797.107, 1797.176, 1797.189(a)  
313 (2), 1797.206, 1797.214, and 1798.150, Health and Safety Code. Reference: Sections  
314 1797.176, 1797.220, 1798.150, and 1798.170, Health and Safety Code.

315  
316 **ARTICLE 4. HOSPITAL STROKE CARE REQUIREMENTS AND EVALUATIONS**

317  
318 **§ 100270.223. Comprehensive Stroke Care Centers**

319  
320 (a) Hospitals designated as a comprehensive stroke center by the local EMS  
321 agency shall meet the following minimum criteria:

322  
323 (1) Satisfy all the requirements of a thrombectomy-capable and primary stroke center  
324 as provided in this chapter.

325

15-Day Public Comment  
July 10 – July 25, 2018

326 (2) Neuro-endovascular diagnostic and therapeutic procedures available twenty-four  
327 (24) hours a day, seven (7) days a week.

328  
329 (3) Advanced imaging, available twenty-four (24) hours a day, seven (7) days a week,  
330 three hundred and sixty-five (365) days per year, which shall include but not be limited  
331 to:

332  
333 ~~(A) Computed tomography (CT) angiography.~~

334  
335 ~~(B) Magnetic resonance imaging (MRI).~~

336  
337 ~~(C)~~(A) Diffusion-weighted magnetic resonance imaging.

338  
339 (B) Transcranial Doppler (TCD).

340  
341 (4) Intensive care unit (ICU) beds with licensed independent practitioners with the  
342 expertise and experience to provide neuro-critical care twenty-four (24) hours a  
343 day, seven (7) days a week, three hundred and sixty-five days (365) days per  
344 year.

345  
346 ~~(5) Written policies and procedures for comprehensive stroke services that are~~  
347 ~~reviewed at least every two (2) years, revised as needed, and implemented.~~

348  
349 ~~(6)~~(5) Data-driven quality improvement, including collection and monitoring of  
350 standardized comprehensive stroke center performance measures.

351  
352 ~~(7)~~(6) A stroke patient research program.

353  
354 ~~(8)~~(7) Satisfy all the following staff qualifications:

355  
356 (A) A neurosurgical team capable of assessing and treating complex stroke and  
357 stroke- like syndromes.

358  
359 ~~(B) A neuro-radiologist with a current Certificate of Added Qualifications~~  
360 ~~in Neuroradiology on staff.~~

361  
362 ~~(C) A physician with neuro-interventional angiographic training and skills on staff~~  
363 ~~as deemed by the hospital's credentialing process.~~

364  
365 ~~(D)~~(B) A qualified neuro-radiologist, board-certified by the American Board of  
366 Radiology or the American Osteopathic Board of Radiology.

367  
368 ~~(E)~~(C) A qualified vascular neurologist, board-certified by the American Board of  
369 Psychiatry and Neurology or the American Osteopathic Board of Neurology and  
370 Psychiatry.

371  
372 ~~(F)~~(D) If teleradiology is used, staffing and staff qualification requirements provided in



15-Day Public Comment  
July 10 – July 25, 2018

373 this section shall remain in effect and shall be documented by the hospital.

374

375 (E) Written call schedule for attending neurointerventionalist, neurologist,  
376 neurosurgeon providing availability twenty-four (24) hours a day seven (7) days a  
377 week.

378

379 (8) Provide comprehensive rehabilitation services either on-site or by written  
380 transfer agreement with another health care facility licensed to provide such  
381 services.

382

383 (9) Written transfer agreements with primary stroke centers in the region to accept  
384 the transfer of patients with complex strokes when clinically warranted.

385

386 (10) A comprehensive stroke center shall at a minimum, provide guidance and  
387 continuing stroke-specific medical education to hospitals designated as a primary  
388 stroke center with which they have transfer agreements.

389

390 (b) Additional requirements may be ~~required at the discretion of~~ stipulated by the  
391 local EMS agency medical director.

392

393 Note: Authority cited: Sections 1797.103, 1797.107, 1797.176, 1797.204, 1797.220,  
394 1798.150, and 1798.172, Health and Safety Code. Reference: Sections 1797.204,  
395 1797.220, and 1797.222, Health and Safety Code.

396

397 **§ 100270.224. Thrombectomy-Capable Stroke Centers**

398

399 (a) Hospitals designated as a thrombectomy-capable stroke center by the local  
400 EMS agency shall meet the following minimum criteria:

401

402 (1) Satisfy all the requirements of a primary stroke center as provided in this chapter.

403

404 (2) The ability to perform mechanical thrombectomy for the treatment of ischemic stroke  
405 twenty-four (24) hours a day, seven (7) days a week, three hundred and sixty-five (365)  
406 days per year.

407

408 (3) Dedicated neuro-intensive care unit beds to care for acute ischemic stroke patients  
409 twenty-four (24) hours a day, seven (7) days a week, three hundred and sixty-five (365)  
410 days per year.

411

412 (4) Satisfy all the following staff qualifications:

413

414 (A) A neurosurgical team capable of assessing and treating complex stroke and  
415 stroke- like syndromes, if provide neurosurgical services.

416

417 ~~(B) A neuro-radiologist with a current Certificate of Added Qualifications~~  
418 ~~in Neuroradiology on staff.~~

15-Day Public Comment  
July 10 – July 25, 2018

- 419  
420 ~~(G)~~(B) A physician with neuro-interventional angiographic training and skills on  
421 staff as deemed by the hospital's credentialing process.  
422
- 423 ~~(D)~~(C) A qualified neuro-radiologist, board-certified by the American Board of  
424 Radiology or the American Osteopathic Board of Radiology.  
425
- 426 ~~(E)~~(D) A qualified vascular neurologist, board-certified by the American Board of  
427 Psychiatry and Neurology or the American Osteopathic Board of Neurology and  
428 Psychiatry.  
429
- 430 ~~(F)~~(E) If teleradiology is used, staffing and staff qualification requirements provided in  
431 this section shall remain in effect and shall be documented by the hospital.  
432
- 433 (5) The ability to perform ~~expanded~~ advanced imaging twenty-four (24) hours a day,  
434 seven (7) days a week, three hundred and sixty-five (365) days per year, which shall  
435 include, but not be limited to, the following:
- 436
- 437 (A) Computed tomography angiography (CTA).  
438
- 439 ~~(B) Magnetic resonance imaging (MRI).~~  
440
- 441 ~~(G)~~(B) Diffusion-weighted magnetic resonance imaging and / or CT Perfusion.  
442
- 443 ~~(D) Computed tomography (CT) of the head.~~  
444
- 445 ~~(E)~~(C) Catheter angiography.  
446
- 447 ~~(F)~~(D) Magnetic resonance angiography (MRA).  
448
- 449 ~~(G)~~(E) Carotid duplex ultrasound.  
450
- 451 ~~(H) Transcranial ultrasonography.~~  
452
- 453 ~~(I)~~(F) Transesophageal echocardiography (TEE).  
454
- 455 (G) Transthoracic Echocardiography (TTE).  
456
- 457 (6) A process to collect and review data regarding adverse patient outcomes  
458 following mechanical thrombectomy.  
459
- 460 ~~(7) The ability to submit data for thirteen standardized performance measures:~~  
461
- 462 ~~(A) Eight (8) stroke (STK) measures.~~

463  
464 ~~(B) Five comprehensive stroke (CSTK) measures for the ischemic stroke population.~~

465  
466 ~~(8)(7)~~ Written transfer agreement with at least one comprehensive stroke center.

467  
468 (b) Additional requirements may be ~~required at the discretion of~~ stipulated by the  
469 local EMS agency medical director.

470

471 **§ 100270.225. Primary Stroke Centers**

472

473 (a) Hospitals designated by the local EMS agency as a primary stroke center shall  
474 meet all the following minimum criteria:

475

476 (1) Adequate staff, equipment, and training to perform rapid evaluation, triage,  
477 and treatment for the stroke patient in the emergency department.

478

479 (2) Standardized stroke care protocol/order set.

480

481 (3) Stroke diagnosis and treatment capacity twenty-four (24) hours a day, seven  
482 (7) days a week, three hundred and sixty-five (365) days per year.

483

484 (4) A quality improvement system, including data collection.

485

486 (5) Continuing education in stroke care provided for staff physicians, staff nurses,  
487 staff allied health personnel, and EMS personnel.

488

489 (6) Public education on stroke and illness prevention.

490

491 (7) An acute stroke team, available to see in person or via telehealth, a patient  
492 identified as a potential acute stroke patient within 15 minutes following the patient's  
493 arrival at the hospital's emergency department or within 15 minutes following a  
494 diagnosis of a patient's potential acute stroke.

495

496 (A) At a minimum, an acute care stroke team shall consist of:

497

498 1. A neurologist, neurosurgeon, interventional neuro-radiologist, or emergency  
499 physician who is board certified or board eligible in neurology, neurosurgery,  
500 endovascular neurosurgical radiology, or other board-certified physician with sufficient  
501 experience and expertise in managing patients with acute cerebral vascular disease  
502 as determined by the hospital credentials committee.

503

504 2. A registered nurse, physician assistant or nurse practitioner who has demonstrated  
505 competency, as determined by the physician director described in above, in caring for  
506 acute stroke patients.

507

508 (8) Written policies and procedures for stroke services which shall include

15-Day Public Comment  
July 10 – July 25, 2018

509 written protocols and standardized orders for the emergency care of stroke  
510 patients. These policies and procedures shall be reviewed at least every two (2)  
511 years, revised as needed, and implemented.

512  
513 (9) Data-driven, continuous quality improvement process including collection  
514 and monitoring of standardized performance measures.

515  
516 (10) Neuro-imaging services capability that is available twenty-four (24) hours a day,  
517 seven (7) days a week, three hundred sixty-five (365) days per year, such that imaging  
518 shall be initiated within twenty-five (25) minutes following emergency department  
519 arrival.

520  
521 (11) Neuro-imaging services available within this timeframe shall, at a minimum,  
522 include:

523  
524 (A) Computerized tomography (CT) scanning.

525  
526 (B) Magnetic resonance imaging (MRI).

527  
528 (C) Computed tomography angiography (CTA) and / or Magnetic resonance  
529 angiography (MRA).

530  
531 (D) TEE or Transthoracic echocardiography (TTE).

532  
533 ~~(C)~~(E) Interpretation of the imaging.

534  
535 (12) If teleradiology is used in image interpretation, all staffing and staff qualification  
536 requirements contained in this section shall remain in effect and shall be  
537 documented by the hospital.

538  
539 (13) Neuro-imaging studies shall be reviewed by a physician with appropriate  
540 expertise, such as a board-certified radiologist, board-certified neurologist, a board-  
541 certified neurosurgeon, or residents who interpret such studies as part of their training  
542 in ACGME-approved radiology, neurology, or neurosurgery training program within  
543 forty- five (45) minutes of emergency department arrival.

544  
545 (A) For the purpose of this subsection, a qualified radiologist shall be board certified  
546 by the American Board of Radiology or the American Osteopathic Board of  
547 Radiology.

548  
549 (B) For the purpose of this subsection, a qualified neurologist shall be board certified  
550 by the American Board of Psychiatry and Neurology or the American Osteopathic Board  
551 of Neurology and Psychiatry.

552  
553 (C) For the purpose of this subsection, a qualified neurosurgeon shall be board  
554 certified by the American Board of Neurological Surgery.

15-Day Public Comment  
July 10 – July 25, 2018

555  
556 (14) Laboratory services capability that is available twenty-four (24) hours a day, seven  
557 (7) days a week, three hundred and sixty-five (365) days per year, such that services  
558 may be performed within forty-five (45) minutes following emergency department arrival.

559  
560 (15) Neurosurgical services that are available, including operating room availability,  
561 either directly or under an agreement with a comprehensive or other primary stroke  
562 center with neurosurgical services, within two (2) hours following the admission of  
563 acute stroke patients to the primary stroke center.

564  
565 (16) Acute care rehabilitation services.

566  
567 (17) Transfer arrangements with one or more higher level of care centers when  
568 clinically warranted or for neurosurgical emergencies.

569  
570 (18) There shall be a physician director of a primary stroke center, who may also  
571 serve as a physician member of a stroke team, who is board-certified in neurology or  
572 neurosurgery or another board-certified physician with sufficient experience and  
573 expertise dealing with cerebral vascular disease as determined by the hospital  
574 credentials committee.

575  
576 (b) Additional requirements may be stipulated by ~~required at the discretion of~~ the  
577 local EMS agency medical director.

578  
579 Note: Authority cited: Sections 1797.102, 1797.103, 1797.107, 1797.176, 1797.204  
580 1797.220, 1797.250, 1797.254, 1798.150, and 1798.172, Health and Safety Code.  
581 Reference: Sections 1797.104, 1797.176, and 1797.204, 1797.220, 1797.222, 1798.170,  
582 Health and Safety Code.

583  
584 **§ 100270.226. Acute Stroke Ready Hospitals**

585  
586 (a) Hospitals designated by the local EMS agency as an acute stroke ready  
587 hospital shall meet all the following minimum criteria:

588  
589 (1) An acute stroke team available to see, in person or via telehealth, a patient identified  
590 as a potential acute stroke patient within ~~thirty (30)~~ twenty (20) minutes following the  
591 patient's arrival at the hospital's emergency department.

592  
593 (2) Written policies and procedures for emergency department stroke services that  
594 are reviewed, revised as needed, and implemented at least every three (3) years.

595  
596 (3) Emergency department policies and procedures shall include written protocols  
597 and standardized orders for the emergency care of stroke patients.

598  
599 (4) Data-driven, continuous quality improvement process including collection  
600 and monitoring of standardized performance measures.

15-Day Public Comment  
July 10 – July 25, 2018

- 601  
602 (5) Neuro-imaging services capability that is available twenty-four (24) hours a  
603 day, seven (7) days a week, three hundred and sixty-five (365) days per year,  
604 such that imaging shall be performed and reviewed by a physician within sixty (60)  
605 minutes following emergency department arrival.  
606  
607 (6) Neuro-imaging services shall, at a minimum, include:  
608  
609 (A) Computerized tomography (CT).  
610  
611 (B) Magnetic resonance imaging (MRI).  
612  
613 (C) Interpretation of the imaging.  
614  
615 (7) If teleradiology is used in image interpretation, all staffing and staff  
616 qualification requirements contained in this subsection shall remain in effect and  
617 shall be documented by the hospital.  
618  
619 (8) Neuro-imaging studies shall be reviewed by a physician with appropriate  
620 expertise, such as a board-certified radiologist, board-certified neurologist, a board-  
621 certified neurosurgeon, or residents who interpret such studies as part of their  
622 training in ACGME-approved radiology, neurology, or neurosurgery training program.  
623  
624 (A) For the purpose of this subsection, a qualified radiologist shall be board-certified  
625 by the American Board of Radiology or the American Osteopathic Board of  
626 Radiology.  
627  
628 (B) For the purpose of this subsection, a qualified neurologist shall be board-certified  
629 by the American Board of Psychiatry and Neurology or the American Osteopathic Board  
630 of Neurology and Psychiatry.  
631  
632 (C) For the purpose of this subsection, a qualified neurosurgeon shall be board-  
633 certified by the American Board of Neurological Surgery.  
634  
635 (b) Laboratory services shall, at a minimum, include blood testing,  
636 electrocardiography and x-ray services, and be available twenty-four (24) hours a day,  
637 seven (7) days a week, three hundred and sixty-five (365) days per year, and able to be  
638 completed and reviewed by physician within sixty (60) minutes following emergency  
639 department arrival.  
640  
641 (c) Neurosurgical services that are available, including operating room availability,  
642 either directly or under an agreement with a primary or comprehensive stroke center,  
643 within three (3) hours following the admission of acute stroke patients to an acute stroke-  
644 ready hospital.  
645  
646 (d) Provide IV thrombolytic treatment Transfer arrangements with one or more

15-Day Public Comment  
July 10 – July 25, 2018

647 primary or comprehensive stroke center(s) that facilitate the transfer of patients with  
648 strokes to the stroke center(s) for care when clinically warranted.

649  
650 (e) There shall be a director of an acute stroke-ready hospital, who may also serve as  
651 a member of a stroke team, who is a physician or advanced practice nurse who maintains  
652 at least six (6) hours per year of educational time in cerebrovascular disease;

653  
654 (f) Acute care stroke team for an acute stroke-ready hospital at a minimum shall consist  
655 of a nurse and a physician with training and expertise in acute stroke care.

656  
657 (g) Additional requirements may be ~~included at the discretion of~~ stipulated by the  
658 local EMS agency medical director.

659  
660 Note: Authority cited: Sections 1797.103, 1797.107, 1797.176, 1797.204, 1797.220,  
661 1798.150, and 1798.172, Health and Safety Code. Reference: Sections 1797.204,  
662 1797.220, and 1797.222, Health and Safety Code.

663  
664 **§ 100270.227. EMS Receiving Hospitals (Non-designated for Stroke Critical Care**  
665 **Services)**

666 (a) An EMS receiving hospital that is not designated for stroke critical care  
667 services shall do the following, at a minimum and in cooperation with stroke  
668 receiving centers and the local EMS agency in their jurisdictions:

669  
670 (1) Participate in the local EMS agency's quality improvement system, including  
671 data submission as determined by the local EMS agency medical director.

672  
673 (2) Participate in the inter-facility transfer agreements to ensure access to a  
674 stroke critical care system for a potential stroke patient.

675  
676 Note: Authority cited: Sections 1797.88, 1797.103, 1797.107, 1797.176, 1797.220,  
677 1798.100, 1798.150, and 1798.172, Health and Safety Code. Reference: Sections  
678 1797.176, 1797.220, and 1798.150, 1798.170, Health and Safety Code.

679  
680 **ARTICLE 5. DATA MANAGEMENT, QUALITY IMPROVEMENT AND EVALUATION**

681  
682 **§ 100270.228. Data Management Requirements**

683  
684 (a) The local EMS agency shall implement a standardized data collection and  
685 reporting process for stroke critical care systems.

686  
687 (b) The system shall include the collection of both prehospital and hospital patient  
688 care data, as determined by the local EMS agency.

689  
690 (c) The prehospital stroke patient care elements shall be compliant with the most  
691 current version of the California EMS Information Systems (CEMSIS) database and  
692 the National EMS Information System (NEMSIS) database.

15-Day Public Comment  
July 10 – July 25, 2018

693  
694 (d) The hospital stroke patient care elements shall be ~~compliant~~consistent with the  
695 U.S. Centers for Disease Control and Prevention, Paul Coverdell National Acute  
696 Stroke Program Resource Guide, dated October 24, 2016.

697  
698 (e) All hospitals that receive stroke patients shall participate in the local EMS agency  
699 data collection process in accordance with local EMS agency policies and  
700 procedures.

701  
702 (f) Stroke data shall be collected and submitted by the local EMS agency,  
703 and subsequently to the EMS Authority, on no less than a quarterly basis.

704  
705 Note: Authority cited: Sections. 1797.102, 1797.103, 1797.107, 1797.176, 1797.204,  
706 1797.220, 1797.227, 1798.150, and 1798.172. Health and Safety Code. Reference:  
707 Section 1797.220, 1797.222, 1797.204.

708

709 **§ 100270.229. Quality Improvement and Evaluation Process**

710 (a) Each stroke critical care system shall have a quality improvement process ~~to~~  
711 ~~include structure, process, and outcome evaluations which focus on improvement~~  
712 ~~efforts to identify root causes of problems, intervene to reduce or eliminate these~~  
713 ~~causes, and take steps to correct the process. This process~~that shall include, at a  
714 minimum:

715

716 (1) Evaluation of structure, process, and outcome.

717

718 ~~(1)(2)~~ A ~~detailed~~ Audit of all Stroke-related deaths, major complications, and transfers.

719

720 ~~(2)(3)~~ A multidisciplinary Stroke Quality Improvement Committee, including both  
721 prehospital and hospital members.

722

723 (3) Participation in the PI process by all designated Stroke centers, other  
724 hospitals that treat stroke patients and prehospital providers involved in the  
725 stroke critical care system.

726

727 (4) Evaluation of both local and regional components of the stroke system.

728

729 ~~(3)(5)~~ Participation in the stroke data management system.

730

731 ~~(4)(6)~~ Compliance with the California Evidence Code, Section 1157.7 to  
732 ensure confidentiality, and a disclosure-protected review of selected stroke  
733 cases.

734

735 ~~(b)~~ The local EMS agency shall be responsible for the following:

736

737 ~~(1)~~ The on-going performance evaluation of a local or regional stroke critical care  
738 system.

739



15-Day Public Comment  
July 10 – July 25, 2018

740 ~~(2) The development of a quality improvement process.~~  
741

742 ~~(3) Ensuring that designated stroke centers, other hospitals that treat stroke patients—~~  
743 ~~and prehospital providers involved in a Stroke critical care system participate in the—~~  
744 ~~quality improvement process.~~

745  
746 ~~(c)(b) The local EMS agency shall be responsible for on-going performance evaluations—~~  
747 ~~of all levels of stroke centers and quality improvement of the stroke critical care system.~~

748  
749 Note: Authority cited: Sections 1797.102, 1797.103, 1797.107, 1797.176, 1797.204,  
750 1797.220, 1797.250, 1797.254, 1798.150, and 1798.172. Health and Safety Code.  
751 Reference: Section 1797.104, 1797.176, 1797.204, 1797.220, 1797.222, 1798.170  
752 Health and Safety Code.