

6. Neurological and Vascular Surgery

- a. Craniotomy: transfrontal
lateral
occipito-parietal
- b. Craniectomy: suboccipital
subtemporal - decompression, trigeminal neurectomy
various, for osteomyelitis, abscess drainage, repair of compound,
comminuted skull fractures, bone cysts and tumors
- c. Burr hole placement: two, uni - or bilaterally placed, for diagnostic uses.
- d. Repair of scalp wounds and other soft tissues
- e. Pneumoencephalography: ventriculography
encephalography
- f. Placement of skull tongs for skeletal traction
- g. Cisternal and lumbar puncture
- h. Laminectomy: cervical
thoracic
lumbar
- i. Surgery of the autonomic nervous system: cervical
intrathoracic
intra-abdominal
- j. Injection of the autonomic nerves
- k. Surgery of the peripheral nerves
- l. Special surgery of blood vessels

Special equipment desirable for the above named surgical procedures:

1. Mechanical suction
2. Electro-cautery and coagulation
3. Specially tailored head and laminectomy sheets for drapes
4. Pressed cotton sponges
5. Silver foil
6. Five-yard gauze bandage rolls for head dressings
7. Foot-square, six-ply gauze "flats" for head dressings
8. X-ray department co-operation in the execution of pneumoencephalography
9. Special head rests for craniotomy, craniectomy, burr holes, and cervical laminectomy.
10. Ampules of sterile 50% glucose or sucrose for intravenous use
11. 1% neo-syneprine, for hypodermic use
12. Nerve and cortex stimulator (Harvard inductorium)
13. Lumbar puncture set, complete and sterile at all times.

Basic supply lists for various neurosurgical procedures and vascular surgery

- a. Craniotomy: all types of flaps, suboccipital craniectomy
 1. Pressed cotton
 2. Silk or nylon, size A
 3. Bone wax
 4. Silver foil
 5. Electro-surgical unit
 6. Bone motor and cable, when available
 7. Special head rests
 8. Dozen each large and small sterile safety pins

9. Five-yard rolls and large "flats" for head dressings
10. 6 dozen straight $5\frac{1}{2}$ inch Kelly hemostatic forceps
11. 1 " curved " " " "
12. 2 " straight $4\frac{1}{2}$ " " " (mosquito)
13. Bone forceps (Numbers are from Mueller catalogue)
 - Bane rongeur A-3460
 - Cushing rongeur BS-1955
 - Cranial rongeur, double action, BS-1960
 - Stille-Luer rongeur, curved, double action, BS-1952
 - Horsely rongeur BS-1945
 - Esmarch rongeur BS-1920
 - Montenovesi rongeur NS-275
 - Barnhill cranial nibbling forcep, N-455
14. 2 sharp periosteotomes
15. 2 brain canulas
16. 1 dural hook
17. 1 small nerve hook or mastoid searcher
18. 1 Adson right angle knife
19. 1 tonsil knife
20. 2 Davis spatula dissectors, curved and straight
21. 1 metal suction tip
22. 2 glass suction tips
23. 3 tissue forceps, 6 inch, with 1-and-2 teeth
24. 3 " " " without teeth
25. 2 find Adson tissue forceps
26. 1 bayonet type dressing forcep, $5\frac{1}{2}$ inch
27. 1 Hudson drill set, with complete set of burrs
28. 1 blunt periosteal elevator -- "joker"
29. 1 mouth gag for flap elevator, A-6580
30. 1 grooved director
31. 2 Cushing brain spoons
32. Scissors: small, A-1575
 - medium, $5\frac{1}{2}$ inch, GO-232
 - large, GO-228
 - long curved Metzenbaum tonsil, A-7980
33. 2 sharp 5-prong rake retractors
34. 2 vein retractors, plain edge
35. 2 Cushing decompression retractors
36. 2 Kanavel retractors BS-2080
37. 1 Richter thyroid retractor
38. 1 laminectomy retractor BS-2070 (put in only in suboccipital operations)
39. 12 small towel clips
40. 12 large towel clips
41. 1 pituitary rongeur
42. Needle holders: 1 small, 2 medium-large
43. Aneurysm hook
44. 1 Pitkin sanilok syringe and metal bulb with tubing
45. 2 mastoid retractors
46. 1 Cushing clip set: tray, cover, cutter, silver wire
47. 3 MacKenzie clip forceps
48. Brain retractors: 2 large, flat, s-shaped
 - 2 small, " "
 - 4 right angled, different depths
49. 1 Zeigler iris knife
50. 1 clip forcep, skin clips
51. 1 small iris tissue forcep, without teeth
52. 1 " " " " , with 1-and-2 teeth

53. Bark-Parker knife handles: 3 medium
1 small
54. 1 8 mm. Gutch chisel
55. 1 wooden mallet
56. 2 7 inch Forester sponge forceps
57. 6 20 inch Gigli saws
58. 2 Gigli handles
59. 4 Gigli guides
60. 1 Cushing copper pituitary spoon
61. 2 soft red rubber catheters, 8 and 10 French
62. 3 4-oz. asepto syringes
63. Needles: curved non-cutting needles for dura mater
" " " "
1-3/4 inch straight needles for skin

- b. Craniectomy: as for craniotomy, except
omit:
mouth gag for flap elevator
laminectomy retractor
Zeigler iris knife
Need only 3 dozen straight Kelly forceps

- include:
1. Klemme type trigeminal retractor
2. Electric head light, if available

c. Burr hole placement

1. 2 dozen straight 5 1/2 inch Kelly forceps
2. 1 " curved " " "
3. 6 straight 4 1/2 inch Kelly forceps (mosquito)
4. 1 Stille-Luer double action forcep or cranial nibbling forcep
5. 1 dozen each large and small safety pins
6. 1 sharp periosteotome
7. 2 brain canulas
8. 1 dural hook
9. 1 small nerve hook
10. 2 Davis spatula dissectors, curved and straight
11. 1 metal suction tip
12. 2 glass suction tips
13. 2 tissue forceps, 6 inch, with 1-and-2 teeth
14. 2 " " " , without teeth
15. 2 fine Adson tissue forceps
16. 1 bayonet type dressing forcep
17. 1 Hudson drill set, with complete set of burrs
18. 1 grooved director
19. 1 small Cushing brain spoon
20. Scissors, as for craniotomy
21. 2 small sharp rake retractors
22. 12 small towel clips
23. 12 large towel clips
24. 1 pituitary rongeur
25. Needle holders: 1 small, 2 medium large
26. 1 Pitkin snilok syringe and metal bulb with tubing

27. 3 mastoid retractors
28. 1 Cushing clip set: tray, cutter, cover, silver wire
29. 3 MacKenzie clip forceps
30. 2 small flat s-shaped brain retractors
31. 1 clip forcep, with skin clips
32. 1 small iris tissue forcep, without teeth
33. 1 " " " " " with 1-and-2 teeth
34. Bard-Parker knife handles, as for craniotomy
35. 2 soft red rubber catheters, 8 and 10 French
36. 3 4-oz. asepto bulb syringes
37. Needles, as for craniotomy

d. Repair of scalp wounds

1. 2 dozen $5\frac{1}{2}$ inch straight Kelley forceps
2. 2 " $4\frac{1}{2}$ " " " " "
3. Needles, needle holders, knives, scissors, rake retractors, Pitkin, asepto syringes, slik, suction tips, tissue forceps as in set for craniotomy.
4. Provision for copious saline irrigation

e. Ventriculography

Same set as for placement of burr holes, but to include two $1\frac{1}{2}$ inch lengths of soft rubber tubing attached to butt of brain canulas, and 1 10 cc glass syringe.

f. Placement of skull tongs

1. 1 set skull tongs
2. 2 scalpels
3. 6 mosquito Kelly forceps
4. 2 Adson tissue forceps
5. 1 medium size scissors
6. 1 sharp periosteotome
7. 1 Pitkin sanilok syringe, bulb, and tubing
8. 12 small towel clips
9. Hudson drill, with burr #1.
10. Silk
11. 1 medium sized needle holder
12. 6 cutting curved needles for scalp
13. Sterile collodion

g. Lumbar puncture, cisternal puncture, encephalography

1. 2 sponge forceps
2. 1 2 cc. syringe
3. 1 20 cc. syringe
4. 10 cc. 1% novocaine, without adrenaline
5. 6 towel clips
6. 1 pint glass jar
7. 3 20 cc. sterile test tubes, marked "1, 2, 3"
8. 2 spinal needles, large and medium sizes
9. Manometer, tubing, stop cock, tubing and stop cock being sterile
10. Collodion

h. Laminectomy

1. 2 ring forceps
2. 12 large towel clips
3. 12 small towel clips
4. Skin clip forceps and clips
5. Suction tips, knives, scissors, periosteotomes, bone rongeurs, rake and self retaining retractors, pressed cotton, Davis spatulae, grooved director, putuitary rongeur, hemostats, dural hook, nerve hook, tonsil knife, tissue forceps of all types, s-shaped brain spatulae, vein retractors, needles and needle holders, Pitkin syringe, Cushing clip set and forceps, iris knife, chisel and mallet, soft catheters, and septo syringes as given for craniotomy.
6. Large curved cutting needles
7. Size 0 chromic catgut
8. Size A silk or nylon
9. Large and small curet.

i. Surgery of the autonomic nervous system

This will vary from location to location, but in all cases the basic set will be essentially that of the craniotomy, with fewer hemostats, and none of the cranial bone instruments unless specified. Instrument lists will be furnished upon the scheduling of any such type of operation.

j. Injection of the autonomic nerves

Use the same set-up as for lumbar puncture, except:

1. Omit pint, jar, test tubes, manometer set
2. Include 10 cc. of 2% novocaine without adrenaline

k. Surgery of peripheral nerves

1. 3 ring forceps
2. 12 large towel clips
3. 12 small towel clips
4. Skin clip forceps and clips
5. Scalpels as for craniotomy
6. Moist gauze brain sponges
7. Pressed cotton sponges
8. Moist 3/8 inch cotton tape
9. Scissors as for craniotomy
10. 2 dozen 5 1/2 inch straight Kelly forceps
11. 2 " 4 1/2 " " " "
12. 6 curved 5 1/2 inch Kelly forceps
13. Tissue forceps, all types, as for craniotomy
14. 3 Gillette razor blades, broken in half lengthwise
15. Needles and needle holders as in craniotomy
16. Small, curved, cutting needles
17. Black horsehair
18. White silk
19. Black silk, size A
20. Silk, size 8-0, on swaged needles if possible. If this silk is not obtainable, untwist the three-strand twist regular A silk, and use individual strands on finest curved needle for nerve suture.
21. 1 sharp periosteotome

22. 1 grooved director
23. 2 Senn retractors, both types
24. 4 Kanavel retractors, 2 sizes
25. 1 Davis curved spatula
26. 1 nerve hook
27. 1 aneurysm needle
28. 3 asepto syringes
29. 2 5-pronged sharp rake retractors
30. 2 Richter type self retaining thyroid retractors
31. Nerve stimulator
32. Blood pressure cuff
33. Sterile sea sponges
34. Preformed, sterilized splint where necessary

1. Special Surgery of blood vessels

Lists for this set will be supplied as necessary. In general, the set will be must the same as that for peripheral nerve work. Heavy silk ligatures may be necessary, and 6 8-inch Kelly hemostats should be included.

Special - spinal puncture set up