

TABLE E-1 Postoperative Protocol

Week	Key Events*
-3	Horses arrive, radiographs, treadmill train
-2	Treadmill train
-1	Treadmill train, LE, weigh horses
0	Surgery, stall rest
1	Stall rest, radiographs
2	Stall rest, suture removal
3	Stall rest
4	Stall rest, LE
5	HW five minutes
6	HW ten minutes
7	HW fifteen minutes, LE
8	HW twenty minutes
9	TMT two minutes
10	TMT five minutes
11	TMT eight minutes, LE
12	TMT ten minutes, radiographs
13-14	Stall rest
15	TMT five minutes, LE
16	TMT eight minutes
17-18	TMT ten minutes
19	TMT fifteen minutes, LE
20	TMT twenty minutes
21-23	TGT six minutes
24	Weigh horses, LE, bilateral arthroscopy
25	Stall rest
26	HW ten minutes, suture removal
27	HW fifteen minutes
28	TMT two minutes, LE
29-30	TMT five minutes
31	TMT eight minutes
32	TMT eight minutes, LE
33-35	TMT ten minutes
36	TMT ten minutes, LE
37-39	TGT six minutes
40	TGT six minutes, LE, radiographs
41-43	TGTF six minutes
44	TGTF six minutes, LE
45-47	TGTF six minutes
48	Stall rest, LE
49-51	Stall rest
52	LE, weigh horses, radiographs, bilateral arthroscopy with euthanasia, necropsy

*LE = lameness evaluation, HW = hand walk, TMT = treadmill trot, TGT = trot-gallop-trot, and TGTF = trot-gallop-trot fast.

TABLE E-2 Arthroscopic Evaluation

Feature	Score
Attachment of the repair tissue to adjacent cartilage	
Normal attachment	0
Moderate attachment	1
Mild attachment	2
Slight attachment	3
No attachment	4
Attachment of the repair tissue to adjacent bone	
Normal attachment	0
Moderate attachment	1
Mild attachment	2
Slight attachment	3
No attachment	4
Firmness of the repair tissue	
Similar to surrounding tissue	0
Slightly soft compared with surrounding normal articular cartilage	1
Mildly soft compared with surrounding normal articular cartilage	2
Moderately soft compared with surrounding normal articular cartilage	3
Marked softening compared with surrounding normal articular cartilage	4
Presence of blood in the defect area	
Active hemorrhage	1
No active hemorrhage, but presence of previous hemorrhage	2
No hemorrhage	3
Color of the repair tissue	
Red	1
White-red	2
Yellow	3
Yellow-white	4
White-yellow	5
White	6
Shape of the defect as it relates to the geometry at the time of creation	
No increase in damaged tissue beyond the original geometry	0
Degeneration of tissue beyond the original defect margins	1
Level of repair filling in relation to the surrounding normal articular cartilage	
Mildly recessed	1
Slightly recessed	2
Level	3
Slightly elevated	4
Mildly elevated	5
Moderately elevated	6

*continued***TABLE E-2 (continued)**

Feature	Score
Surface irregularity of the repair tissue	
Non-undulating	1
Slightly undulating	2
Mildly undulating	3
Moderately undulating	4
Estimated volume of repair tissue present	
Overall estimated area of repair tissue present	
Overall grade, noting any degeneration of surrounding tissues	
Tissue not present for grading	0
Poor	1
Fair	2
Good	3
Excellent	4

TABLE E-3 MRI Scoring	
Feature	Score
Femoropatellar joint effusion	
Normal	0
Slight	1
Mild	2
Moderate	3
Severe	4
Femoropatellar synovial proliferation	
Normal	0
Slight	1
Mild	2
Moderate	3
Severe	4
Femoropatellar joint capsule edema	
Normal	0
Slight	1
Mild	2
Moderate	3
Severe	4
Femoropatellar joint capsule fibrosis	
Normal	0
Slight	1
Mild	2
Moderate	3
Severe	4
Subchondral bone sclerosis	
Normal	0
Slight	1
Mild	2
Moderate	3
Severe	4
Osseous hyperintensity on fat-suppressed images (subchondral bone edema)	
Normal	0
Slight	1
Mild	2
Moderate	3
Severe	4
Adjacent articular cartilage abnormalities	
Normal	0
Slight	1
Mild	2
Moderate	3
Severe	4
Defect filling	
No defect filling	0
1%-25% of defect filled	1
26%-50% of defect filled	2
51%-75% of defect filled	3
76%-100% of defect filled	4

TABLE E-4 Modified O'Driscoll Histologic Scoring System

Feature	Score
Nature of the predominant repair tissue	
Some fibrocartilage; mostly nonchondrocytic cells	0
Mostly fibrocartilage	1
Mixed hyaline cartilage and fibrocartilage	2
Mostly hyaline cartilage	3
Hyaline cartilage	4
Surface regularity	
Severe disruption, including fibrillation	0
Fissures	1
Superficial horizontal lamination	2
Smooth and intact	3
Structural integrity	
Severe disintegration	0
Slight disruption, including cysts	1
Normal	2
Tissue thickness	
0%-49% of normal cartilage	0
50%-99% of normal cartilage	1
100% of normal cartilage	2
Integration with adjacent cartilage	
Not bonded	0
Bonded at one end of defect or partially at both ends	1
Bonded at both ends of defect	2
Hypocellularity	
Moderate hypocellularity or hypercellularity	0
Slight hypocellularity	1
Normal hypocellularity	2
Chondrocyte clustering	
25%-100% of the cells	0
<25% of the cells	1
No clusters	2
Freedom from degenerative changes in adjacent cartilage	
Severe hypocellularity, poor or no staining	0
Mild or moderate hypocellularity, slight staining	1
Normal cellularity, mild clusters, moderate staining	2
Normal cellularity, no clusters, normal staining	3
Reconstitution of subchondral bone	
No subchondral bone reconstitution	0
Minimal subchondral bone reconstitution	1
Reduced subchondral bone reconstitution	2
Normal	3
Inflammatory response in subchondral bone	
Severe	0
Moderate	1
None or mild	2