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TABLE E-1 Clinical Scenarios of the Other Patients Treated with This Technique

Patient No.	Clinical Scenario
2	A fifty-nine-year-old woman with type-I osteogenesis imperfecta had a left distal radial fracture that ultimately did not heal nine months after open reduction and internal fixation. At this time, the nonunion was treated with a fibular allograft sandwich affixed with screws. Healing was observed two months later. Twenty-six months after surgery, radiographs showed complete allograft incorporation and the patient had regained full function of the wrist.
3	An eleven-year-old boy with type-III osteogenesis imperfecta had a nonunion of the right femur for a duration of four and one-half years despite open reduction and internal fixation with an intramedullary rod and then revision with a compression plate. This nonunion was treated with allograft femoral struts and recombinant human bone morphogenetic protein-2 (rhBMP-2). Five months after surgery, the patient fell off his bed, and radiographs revealed distal construct loosening. The screws were removed and additional femoral struts were added to the construct, held with cerclage wire. Additional autograft was packed into the defect. The nonunion showed allograft incorporation and healing at three months. At thirty-two months follow-up, the patient had not had new fractures of the right femur and was bearing weight for transfers.
4	A twenty-nine-year-old man with type-III osteogenesis imperfecta had nonunion of a right tibial fracture. Two years after failed intramedullary rod fixation, he was treated with sandwich allograft fixation and replacement of the intramedullary nail, which had broken. Humeral allograft struts were affixed with screws. Allograft incorporation was visible at three months, and at more than four years after surgery, he continued to have full weight-bearing ability.
6	A twenty-three-year-old woman with type-I osteogenesis imperfecta had a nonunion of the left ulna seven months after treatment with a splint and bone stimulator. She was subsequently treated with allograft fibular struts secured with screws. Allograft incorporation was visible by seven months, with stability observed eight years after surgery. Prominent screws were removed, and the patient maintained the ability to use her arms for transfer.
7	A thirty-seven-year-old woman with type-III osteogenesis imperfecta sustained a fracture of the radius and a subsequent nonunion, despite immobilization and local addition of rhBMP-2 to the fracture site. Twenty-five months after the original fracture, she was treated with allograft radius struts affixed with screws. Healing of this fracture was evident four months after surgery, and the graft construct remained stable more than five years after surgery. She also fractured the right ulna two and a half years after treatment for the right radius. She was treated nonoperatively, with a posterior splint and bone stimulator, but a nonunion developed. Nine months after the ulnar fracture, she was treated with fibular allograft slabs affixed with screws, which resulted in healing after four months, with construct stability through thirty-one months of follow-up. She regained the ability to support herself during transfers.
8	A seventy-eight-year-old woman with type-III osteogenesis imperfecta presented with a nonunion of the left humerus fourteen months after treatment with a brace. She was treated with intramedullary rod fixation and humeral allograft struts affixed with sutures. Cortical continuity of the construct with the native bone was observed at two months. More than ten years after surgery, the patient remains healthy with a stable construct and no refracture.
9	A seventeen-year-old female patient with type-III osteogenesis imperfecta and intramedullary rodding of a previous tibial fracture refractured her left tibia. She was treated unsuccessfully with long leg and short leg casts for six months. At the time of revision surgery, the rod was removed and replaced, rhBMP-2 was packed into the site, and fibular allograft struts were secured with screws. Healing was observed at five months; she has remained ambulatory as of four years after surgery.
11	A forty-three-year-old man with type-IV osteogenesis imperfecta fractured both femora in a fall. Femoral plating resulted in successful healing of the left, but not the right, femur. Fifteen months after fracture, he was treated with intramedullary rod fixation and humeral allograft struts secured with screws. Six months after treatment, healing was observed. After almost three years, he remains pain-free and ambulatory, teaching full time.
12	A thirteen-year-old girl with type-III osteogenesis imperfecta fractured the right femur at the site where a Bailey-Dubow rod had disengaged because of skeletal growth. The rod was replaced with a Fassier-Duval telescoping rod. Fibular allograft struts were secured with sutures. Healing was observed three months after surgery. More than six years after her procedure, she remains able to stand during transfers and has persistent graft incorporation and stability.