Objective(s): Problems engendered by acute limb ischemia are compounded in remote areas. A well-established tradition sets the “golden window” for revascularization as six hours. However, faced with supplications for revascularization and the anecdotal experiences of clinical success, the time limits before proceeding to amputation warrant reconsideration.

Methods: Charts were reviewed to ascertain patients with clear documentation of ischemia and delayed diagnosis/intervention past six hours. Retrospective evaluation included predisposing risk factors, duration of symptoms until anti-coagulation, Rutherford classification, time to reperfusion, intervention performed, secondary procedures, limb status at time of discharge, hospital stay, and ambulation status at follow-up.

Results: Over a three-year period, 26 patients were discernible with acute limb ischemia. Ten patients were precluded from review, (eight primary amputations and two with unclear onset times). All patients used tobacco and 11/16 had active cardiac disease, (50% arrhythmia). Fourteen had previous vascular intervention. Patients presented with Rutherford 2b ischemia (six), Rutherford 3 (three), and the remainder Rutherford 2a. Time of onset to anti-coagulation ranged 10-36 hours, (average 22). Time to revascularization ranged another 0.5-6 hours, (mean 2). Immediate surgery was performed in nine patients, six were treated with thrombolysis, and one patient was treated with primary lower leg fasciotomy alone. Procedure times ranged from 1.5 - 4 hours, (average 2.5). All surgical patients had lower leg fasciotomies. One patient in the surgical arm underwent axillofemoral bypass and femoral embolectomy. Secondary interventions included repeat thrombolysis, thigh fasciotomy (one), fasciotomy wound debridement (two), angiogram with iliac stenting post surgical embolectomy (1), fasciotomy closure (post-op 3-14 days), and amputation (two transmetatarsal; two below knee amputations). Surgical intensive care ranged 0-17, (mean 4 days), and hospitalization was 5-91 days (mean 9). Complications included transient renal failure (3/16), fasciotomy site infections (2/11), pneumonia (1/16), and heparin-induced thrombocytopenia (2/16). Six reported normal ambulation at 2 - 18 month follow-up; six utilized in-shoe brace, cane or walker, one walked with BKA prosthesis, and three were using wheel chairs.

Conclusions: Treatment delay for limb ischemia propagates profoundly longer stays and recovery periods. Complications after initial intervention remain high, and more often there is an exigency for multiple interventions after initial restoration of arterial flow. Nevertheless, revascularization is feasible and potentially efficacious despite delay in capability to do so within the six-hour window.