

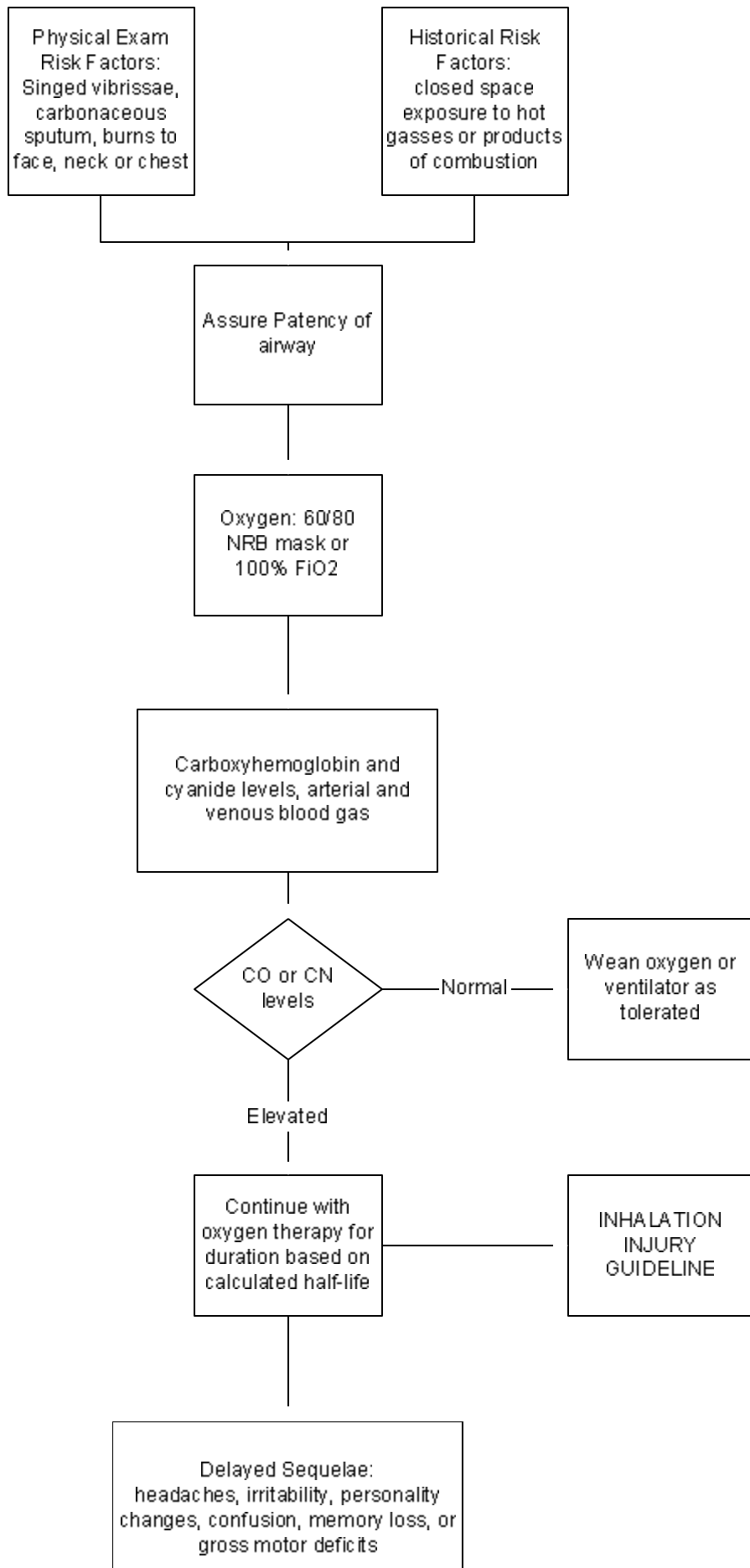
Practice Guidelines

Initial Management of Carbon Monoxide Exposure

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Carbon monoxide binds to hemoglobin and decreases peripheral delivery of oxygen.[1] The half-life of carboxyhemoglobin is markedly reduced from 2.5 hours to 40 minutes by the application of 100% oxygen. Patients who have suffered a significant CO toxicity are at increased risk for both acute and delayed neurological sequelae which might include a potentially reversible demyelinating process evident on MRI.[2] Strong data do not exist to support HBO therapy for CO toxicity[3]. A recent article by Weaver et al.,[4] has shown some improvement in neuropsychological testing at 6 weeks and 12 months when patients undergo three hyperbaric treatments within the first twenty-four hours after exposure. Delayed complications of CO toxicity include: headache, irritability, personality changes, confusion, loss of memory, and gross motor deficits. These delayed affects have been reported to occur in 10% of patients with serious CO exposures.[5] All patients with CO toxicity should have a speech therapy consult after extubation for cognitive evaluation and possible cognitive therapy.



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3. Seger D, W.L., *Carbon monoxide controversies: neuropsychologic testing, mechanism of toxicity, and hyperbaric oxygen*. Ann Emerg Med, 1994. **24**: p. 242-8.
4. Weaver LK, H.R., Chan KJ, Churchill S, Elliot CG, Clemmer TP, Orme JF, Thomas FO, Morris AH, *Hyperbaric oxygen for acute carbon monoxide poisoning*. N Engl J Med, 2002. **347**: p. 1057-67.
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