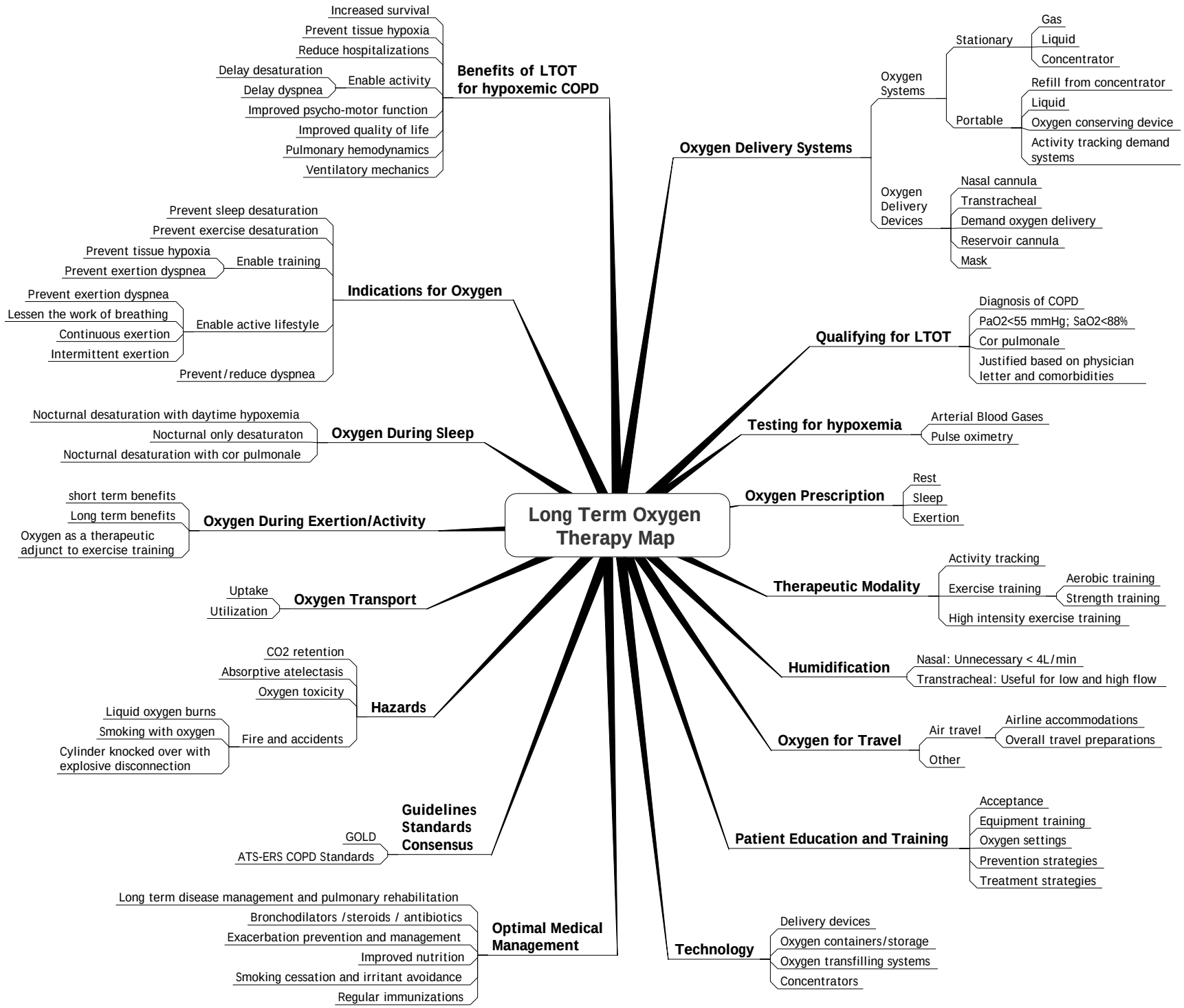
Long Term Oxygen Therapy Map
Benefits of LTOT for hypoxemic COPD
Increased survival
Prevent tissue hypoxia
Reduce hospitalizations
Enable activity
Delay desaturation
Delay dyspnea
Improved psycho-motor function
Improved quality of life
Pulmonary hemodynamics
Ventilatory mechanics
Oxygen Delivery Systems
Oxygen Systems
Stationary
Gas
Liquid
Concentrator
Portable
Refill from concentrator
Liquid
Oxygen conserving device
Activity tracking demand systems
Oxygen Delivery Devices
Nasal cannula
Transtracheal
Demand oxygen delivery
Reservoir cannula
Mask
Qualifying for LTOT
Diagnosis of COPD
PaO2<55 mmHg; SaO2<88%
Cor pulmonale
Justified based on physician letter and comorbidities
Testing for hypoxemia
Arterial Blood Gases
Pulse oximetry
Oxygen Prescription
Rest
Sleep
Exertion
Therapeutic Modality
Activity tracking
Exercise training
Aerobic training
Strength training
High intensity exercise training
Humidification
Nasal: Unnecessary < 4L/min
Transtracheal: Useful for low and high flow
Oxygen for Travel
Air travel
Airline accommodations
Overall travel preparations
Other
Patient Education and Training
Acceptance
Equipment training
Oxygen settings
Prevention strategies
Treatment strategies
Technology
Delivery devices
Oxygen containers/storage
Oxygen transfilling systems
Concentrators
Optimal Medical Management
Long term disease management and pulmonary rehabilitation
Bronchodilators /steroids / antibiotics
Exacerbation prevention and management
Improved nutrition
Smoking cessation and irritant avoidance
Regular immunizations
Guidelines Standards Consensus
GOLD
ATS-ERS COPD Standards
Hazards
CO2 retention
Absorptive atelectasis
Oxygen toxicity
Fire and accidents
Liquid oxygen burns
Smoking with oxygen
Cylinder knocked over with explosive disconnection
Oxygen Transport
Uptake
Utilization
Oxygen During Exertion/Activity
short term benefits
Long term benefits
Oxygen as a therapeutic adjunct to exercise training
Oxygen During Sleep
Nocturnal desaturation with daytime hypoxemia
Nocturnal only desaturaton
Nocturnal desaturation with cor pulmonale
Indications for Oxygen
Enable training
Prevent sleep desaturation
Prevent exercise desaturation
Prevent tissue hypoxia
Prevent exertion dyspnea
Enable active lifestyle
Prevent exertion dyspnea
Lessen the work of breathing
Continuous exertion
Intermittent exertion
Prevent/reduce dyspnea