Glaucoma Pharmacotherapy

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Prostaglandin Analogs
P-rasta On a-log
Prostaglandin analogs are considered the first-line agents due to their efficacy, convenience (once-daily dosing), and tolerability. They increase uveoscleral outflow, reducing IOP effectively.

Beta-Blockers
Beta-fish with Blocks
Beta-blockers reduce aqueous humor production, thereby decreasing IOP. They are commonly used as first-line or adjunctive therapy, but caution is needed in patients with cardiovascular or respiratory conditions.

Alpha-2 Adrenergic Agonists
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Alpha-2 adrenergic agonists reduce aqueous humor production while increasing uveoscleral outflow. They can be used as monotherapy or in combination with other agents.

Carbonic Anhydrase Inhibitors (CAIs)
Carbon-fiber Hydra in Inhibiting-chains
CAIs decrease aqueous humor production by inhibiting carbonic anhydrase enzymes. They are available in topical, oral, and systemic formulations and can be used as adjunctive therapy.

Combination Therapy
Combination Med-bottles
In cases where monotherapy fails to achieve the target IOP, combination therapy with different classes of medications is often required to provide additive or synergistic effects.

Monitoring and Follow-up
Monitor
Regular monitoring of IOP and optic nerve health is necessary to assess treatment response and disease progression. Adjustments to medication regimens should be made based on individual patient needs and goals.

Surgical Considerations
Surgeon
In cases of refractory glaucoma or when pharmacotherapy is insufficient, surgical interventions, such as laser trabeculoplasty or filtration surgeries, may be necessary. Collaboration with ophthalmologists is essential for appropriate referral and management.