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Missouri Department of Social Services Rare Disease Advisory Committee Update On Ivacaftor/Tezacafto/Elexacaftor

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Missouri Department of Social Services Rare Disease Advisory Committee Update on Ivacaftor/Tezacaftor/Elexacaftor

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Rare Disease Advisory Committee

- Established 2019 to advise Drug Utilization Review Board
- Multidisciplinary committee comprised of allied healthcare professionals (physicians, PharmD, RN, PhDs) and MO HealthNet staff
- Quarterly meetings
- Appointment based on experience researching, diagnosing, and treating rare diseases
  - Provide expert recommendations or determinations regarding access to drugs and/or biological products for rare disease treatment

Ivacaftor/Tezacaftor/Elexacaftor

- FDA Approval: 21 October, 2019
- Indication: treatment of cystic fibrosis (CF) in patients aged 12 years and older who have at least one *F508del* mutation in the CFTR gene
- Mechanism of Action:
  - Ivacaftor is a CFTR potentiator
  - Tezacaftor and Elexacaftor are CFTR correctors

Dose/Administration:

- 2 tablets (elexacaftor 100 mg, tezacaftor 50 mg, and ivacaftor 75 mg) in AM
- 1 tablet (ivacaftor 150 mg) in PM

- Drug Clinical Highlights:
  - First CFTR modulator therapy for F508del heterozygotes (90% of CF population)
  - FDA approval based on two phase 3 clinical trials including 510 people with CF
    - First trial demonstrated an increase in ppFEV$_1$ of 13.8% and improvements in sweat chloride, pulmonary exacerbation rate, and BMI
    - Second trial demonstrated an increase in ppFEV$_1$ of 10%
  - Warnings regarding: liver function, concomitant use of CYP3A inhibitors, and cataracts
- Disease Clinical Highlights:
  - Pathophysiology
  - Epidemiology
  - Genetics

- Cost:
  - $310,648 per patient annually
  - Estimated at $28,000,000-55,000,000 for MO HealthNet
- No therapeutic alternatives
- Guidelines:
  - Initial Therapy
    - Documented diagnosis of cystic fibrosis
      - Genetic testing documenting F508del
    - Prescribed by or in consultation with “appropriate specialist” at a CF Care Center
    - Age ≥ 12 years
    - Screening tests: LFTs, Pulm Function, eye exam, no severe liver disease
  - Continuation
    - Annual eye exam
    - LFTs every 3 months for a year then annually
    - Annual documentation of improvement in measurable goal: ppFEV1, pulmonary exacerbation, BMI