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Resveratrol Summary for Intravenous use

As used at Anderson Medical Specialty Associates and in the Bastyr University Clinical Research Center (BCRC).

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INTRAVENOUS RESVERATROL:

Resveratrol has great potential in the treatment of patients who have oncologic disease and chronic illness. Intravenous data in human subjects shows it to be tolerated and safe [4,7]. Data available suggest multiple mechanisms of action in immune-regulatory systems as well as redox balance effects [2,5,6]. Three years of clinical use has revealed no adverse events when used under standard dose and administration guidelines [3].

INTRAVENOUS USE GUIDELINES:

Dose: [3,4]

- Test dose at 1 mg/kg IV on the first day
- Subsequent doses could increase to as much as 25 mg/kg if tolerated two times weekly
    - Lower doses (1-5 mg/kg) are likely sufficient for non-oncology cases [3]
    - Higher doses (5-25 mg/kg) are likely needed for an oncologic effect [3]

Administration:

- Intravenous dosing via either a central or peripheral line.
- Carrier solutions:
    - Per compounding pharmacy instructions
    - Typically Normal Saline but D5W is often compatible
- Rate of administration: start at 1-2 mg/min and titrate up as tolerated by the patient
    - Monitor for signs of nausea which can be the first sign of a non-tolerated dose [3]
    - May have a bile stimulating diarrheal effect at doses over 5 mg/kg
        - Our clinic advises all patients to tale psyllium (2-3 capsules) prior to, during and 4 hours after each IV
    - For allergic / anaphylactic reaction treat per standard protocol.

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- Other IV compatibility:
    - Generally incompatible with other IV solutions in the same IV container

Screening:

- Intolerance to oral Resveratrol is a caution and may exclude use in the IV setting
- Lab studies:
    - CBC, Chemistry panel (Metabolic panel including electrolytes, bilirubin, AST/ALT/GGT, eGFR/BUN/CRE).

Side effect mitigation:

- For nausea and vomiting:
    - Increased psyllium PO as mentioned above
    - IV Ondansetron or a suitable H1 agent
    - Increasing dilution and slowing administration
- Itching or peripheral flushing:
    - IV Benadryl or any suitable H1 agent
    - Increasing dilution and slowing administration (if this happens during an IV piggy back 500 mL of normal saline and slow primary IV infusion rate)

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