

WHO Carcinogenic List

Prelims: Current events of national and international importance | Health

Why in News?

Recently, the WHO's International Agency for Research on Cancer (IARC) classified 3 widely prescribed medicines — hydrochlorothiazide, voriconazole, tacrolimus — as Group 1 carcinogenic to humans in IARC Monographs.

Key Findings

- **Hydrochlorothiazide** - Hypertension therapy.
- **Voriconazole** - Antifungal drug.
- **Tacrolimus** - Immunosuppressant for organ transplant rejection.
- **Status** - All three widely-prescribed medicines have been classified as carcinogenic to humans (Group 1).

Evidence

- **Hydrochlorothiazide** - Strong evidence causing squamous cell skin carcinoma, lip cancer and phototoxicity increases UV sensitivity causing DNA damage.

Carcinoma - A common type of cancer that starts in epithelial cells, which are the cells lining the outer surface of the body, internal organs, and glands.

- **Voriconazole** - Associated with squamous cell carcinoma in transplant patients; same phototoxic mechanism.

Squamous Cell Carcinoma - Arises in flat, scale-like cells found in the skin and organ linings.

- **Tacrolimus** - Linked to non-Hodgkin lymphoma, post-transplant

lymphoproliferative disorder, with **limited evidence for leukaemia and skin carcinoma**.

- But its risks stem from immunosuppression weakening **the body's ability to clear abnormal cells**.

Indian Context

- **Usage**
 - **Hydrochlorothiazide** - Common in hypertension therapy;
 - **Voriconazole** - Widely prescribed in immunocompromised patients.
 - **Tacrolimus** - Central to transplant care.
- **Concerns** - High UV exposure in rural, coastal, hilly regions especially for farmers, increases risk.
- **Issues** - Irrational prescribing, over-the-counter availability, poor adherence to ethical practices.

Recommendations

- **Hydrochlorothiazide/Voriconazole** - Use sunscreen, limit UV exposure, periodic skin checks.
- **Tacrolimus** - Routine monitoring for skin cancers and lymphoproliferative disorders.

Reference

[The Hindu | WHO Carcinogenic List](#)