ASSESSMENT OF ADVERSE DRUG REACTION PATTERN AND FREQUENCY IN ONCOLOGY PATIENTS;A RETROSPECTIVE CROSS-SECTIONAL STUDY

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OBJECTIVE

- Describe the types and frequency of chemotherapy-associated ADRs.
- Assess probability, severity and preventability using standardized tools.
- Identify risk factors and inform patient-safety recommendations.

METHODS

The retrospective study was conducted to collect the data about ADRs of the patients being treated from 1st January 2022 to 31st December 2024 at Shaukat Khanum memorial cancer hospital and research centre. Census sampling was used including all ADR cases identified during the study period through the HIS.

The majority of ADRs were reported in adults accounting for 1,301 cases (71.8%). This was followed by the pediatric population with 355 cases (19.5%).

Among the 1,812 ADRs, the majority were Type A reactions with 1,099 cases (60.7%). The remaining 713 cases (39.3%) were Type B reactions.

DISCUSSION

- Hypersensitivity, renal and gastrointestinal reactions represented major surveillance priorities.
- Findings support proactive pharmacovigilance, regimen modification and supportive care in oncology practice.

TABLE 1. GENDER DISTRIBUTION

GENDER	*No*	*%*
Male	749	41.3
Female	1063	58.7

TABLE 2.ADR DESCRIPTION

ADRs	*n*	*%*
Pulmonary	78	4.3
Renal	236	13.0
CNS	118	6.5
PNS	150	8.3
CVS	76	4.1
Musculoskeletal	55	3.03
GI	227	12.5
Ophthalmic	33	1.82
Ototoxicity	12	0.7
Nail Toxicity	11	0.6
Endocrine	27	1.5
Hepatic Toxicity	88	4.8
Hypersensitivity	593	32.7
Hematologic	71	3.9
Fever	19	1.04
Others	18	1

TABLE 3. SUSPECTED DRUGS

Drugs	*No*	*%*
Chemotherapy Drugs	1208	66.6
Non-Chemotherapy Drugs	604	33.4

RESULTS

The study reveals that the majority of ADRs were medically significant with notable variation across anticancer drug classes. Antimetabolites accounted for the highest number of severe ADRs including those leading to death, hospitalization and permanent disability.

Fig 1: ADRs Severity

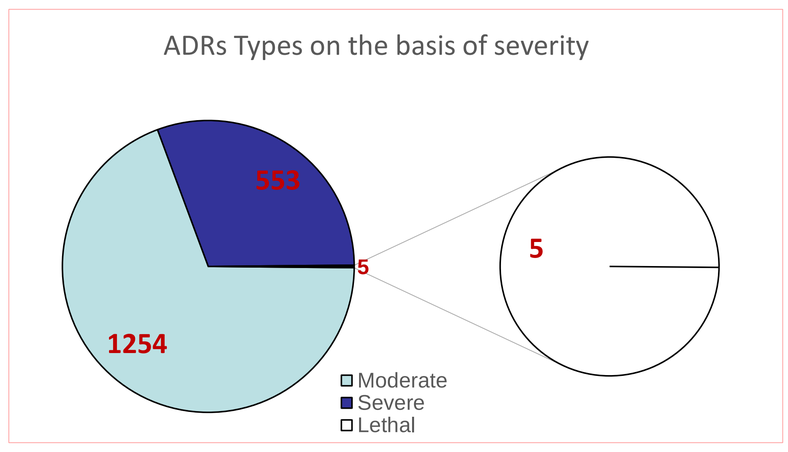


Fig 2: ADRs Probability

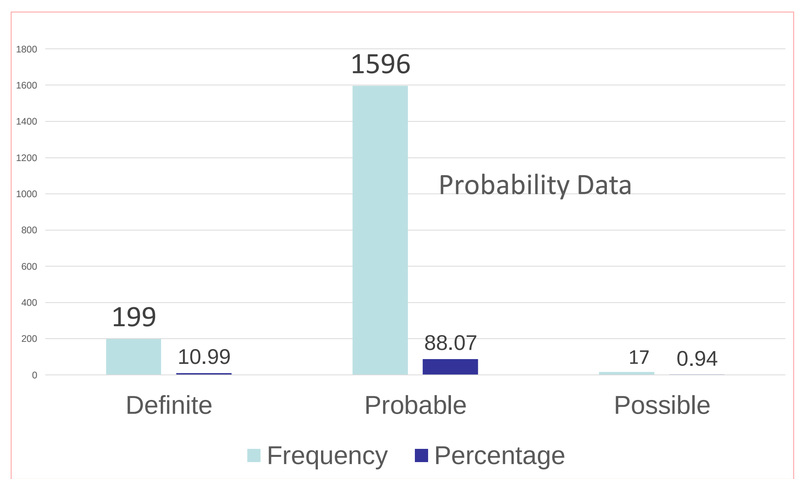


TABLE 4.ADR REPORTING BY SKM TRUST

Year	*No of ADRs*
2022	540
2023	629
2024	643

CONCLUSION

ADR monitoring at SKM characterized the severity, outcomes, management and preventability of ADRs . Intensive surveillance can support early detection and strengthen the safe use of anticancer medicines.