

# Pharmacogenetics and adverse events in the use of fluoropyrimidine in a cohort of cancer patients on standard of care treatment in Zimbabwe

**Table S1:** The frequency of Fluoropyrimidine-related adverse events during the total study period.

	Total study period, N=50		During the first 2 cycles, N=27	
	Toxicities ( ≥3)	Toxicities ( ≤2)	Toxicities ( ≥3)	Toxicities ( ≤2)
Treatment cycles, median (Range)	3 (2-6)	3 (2-6)	2	2
<sup>a</sup> Global	18 (36)	28 (56)	9 (33)	18 (66.6)
Gastrointestinal*	2 (4)	10 (20)	-	8 (29.6)
Nausea	2 (4)	7 (14)	-	7 (25.9)
Vomiting	-	9 (18)	-	7 (25.9)
Diarrhoea	1 (2)	4 (8)	-	1 (3.7)
Haematological*	16 (32)	25 (50)	9 (33)	14 (51.8)
Neutropenia	9 (18)	22 (44)	4 (14.8)	7 (29.6)
Leukopenia	4 (8)	13 (26)	2 (7.4)	5 (26)
Thrombocytopenia	2 (4)	8 (16)	-	3 (11.1)
Anaemia	7 (14)	17 (34)	5 (18.5)	9 (33.3)
HFS <sup>b</sup>	1 (2)	21 (42)	-	6 (22.2)

Dose reduction <sup>c</sup>	3 (6)	NA	1 (2)	NA
Discontinued treatment <sup>d</sup>	1 (2)	NA	-	NA

---

Abbreviations: HFS, hand-foot syndrome; NA, not applicable.

<sup>a</sup>Global includes all fluoropyrimidine-related AEs grade  $\geq 3$ . This also includes dose reduction and treatment discontinuation.

\*Gastrointestinal markers include nausea, vomiting, and diarrhoea.

\*Haematological markers include neutropenia, leukopenia, thrombocytopenia, and anaemia

<sup>b</sup>HFS is defined as palmar-plantar erythrodysesthesia syndrome by the Common Terminology Criteria for Adverse Events version 5.0

<sup>c</sup>Dose reduction of fluoropyrimidines due to a fluoropyrimidine-related AE of grade  $\geq 3$ .

<sup>d</sup>Patients discontinuing treatment with fluoropyrimidines due to a fluoropyrimidine-related AE of grade  $\geq 3$ .

---

**Table S2:** Comparison of severe fluoropyrimidine adverse events with historical and literature cohorts.

	Sample size	Wild type Patients	DPYD Variant Carrier	Overall	Reference
<sup>a</sup> Global		18 (36)	0	18 (36)	
Gastrointestinal	50	2 (4)	0	2 (4)	(This study: Zimbabwe Cohort), 2023.
Haematological		16 (32)	0	16 (32)	
<sup>a</sup> Global		418 (31)	11 (23)	429 (30.7)	
Gastrointestinal*	1394	167 (12.4)	6 (12)	173 (12.4)	(Wigle et al., 2021).
Haematological*		157 (11.7)	6 (12)	163 (11.7)	
<sup>a</sup> Global	7365	1821 (33.6)	167 (50.2)	1888 (34.6)	(Meulendijks et al., 2015).
<sup>a</sup> Global includes all fluoropyrimidine-related AEs grade ≥3. It might not include dose reduction and treatment discontinuation.					
*Gastrointestinal markers include nausea, vomiting, and diarrhoea.					
*Haematological markers include neutropenia, leukopenia, thrombocytopenia, and anaemia					

**Table S3:** Members of Consortium for Genomics and Therapeutics in Africa (CGTA)

SN	Name	Email	Country
1	Prof. Collen Masimirembwa	<a href="mailto:cmasimirembwa@aibst.edu.zw">cmasimirembwa@aibst.edu.zw</a>	Zimbabwe
2	Prof. Collet Dandara	<a href="mailto:collet.dandara@uct.ac.za">collet.dandara@uct.ac.za</a>	South Africa
3	Prof. Oluseye Bolaji	<a href="mailto:obolaji@oauife.edu.ng">obolaji@oauife.edu.ng</a>	Nigeria
4	Prof. Bernards Ogutu	<a href="mailto:ogutu6@gmail.com">ogutu6@gmail.com</a>	Kenya
5	Dr. Ntokozo Ndlovu	<a href="mailto:ntokozosqo@gmail.com">ntokozosqo@gmail.com</a>	Zimbabwe
6	Prof. Margaret Borok	<a href="mailto:mborok@gmail.com">mborok@gmail.com</a>	Zimbabwe
7	Dr Patience Kuona	<a href="mailto:patiekuona@gmail.com">patiekuona@gmail.com</a>	Zimbabwe
8	Prof. Jonathan Matenga	<a href="mailto:jonmatenga@gmail.com">jonmatenga@gmail.com</a>	Zimbabwe