Personalized Chemotherapy-
Chemosensitivity Test

PATIENT	REPORT DATE	BOOKING ID
Kavya H.B.	02 December 2024	#012411050188

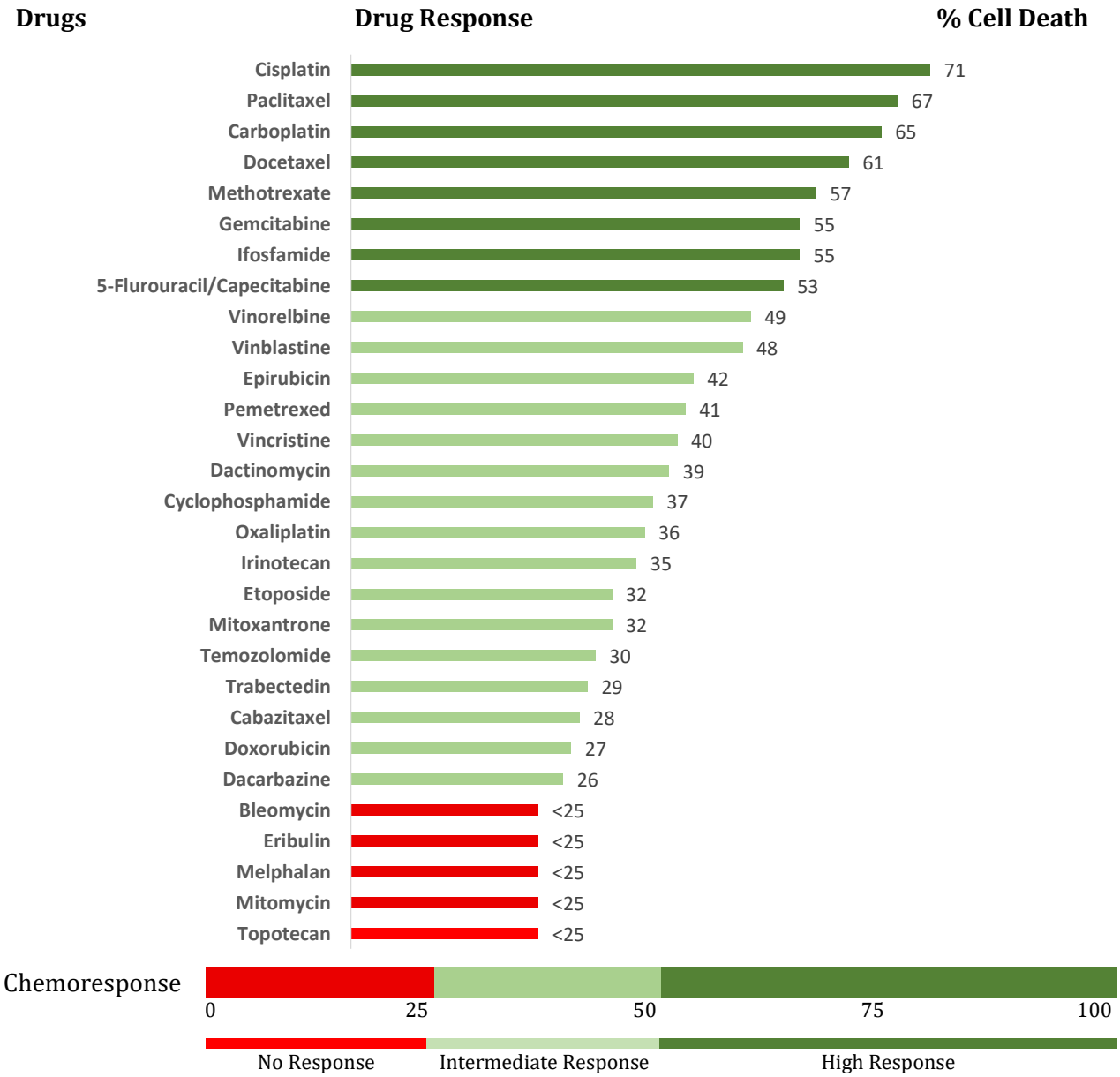
Test Description
The MolQ personalized chemotherapy test uses a blood sample to examine the effectiveness of chemotherapies on an individual patient. The probability of successful therapy can be significantly increased in certain cases, and treatment failure can largely be avoided.

Clinician
Clinician Name: Dr Amit Verma
Medical Facility: Dr AV Institute of Personalized Cancer Therapy and Research
Pathologist: Not Provided

Patient Demographic
Name: Ms. Kavya H.B.
Sex: Female
Date of Birth/Age: 30 years
Disease: Adenoid Cystic Carcinoma-Metastatic

Specimen
Booking ID: 012411050188
Sample Type: Blood
Date of Collection: 14-11-2024
Date of Booking: 15-11-2024

RESPONSE TO CHEMOTHERAPEUTIC DRUGS



Chemosensitivity assay performed on circulating tumor and its associated cells indicates the effectiveness of chemotherapeutic drugs in descending order of efficacy.

INTERPRETATION AND RECOMMENDATIONS

Among the panel of cytotoxic drugs tested, patient's tumor cells showed high response to Cisplatin, Paclitaxel, Carboplatin, Docetaxel, Methotrexate, Gemcitabine, Ifosfamide and 5-Fluorouracil/ Capecitabine (see graph on page 1).

METHODS AND LIMITATIONS

Circulating tumor and its associated cells were isolated from the submitted peripheral blood sample. Live cancer cells were tested against multiple chemotherapy agents. The number of drugs selected for testing depend on the number of circulating tumor associated cells isolated from the submitted sample.

A defined number of cells were incubated with different drugs with respective drug concentrations (mean peak plasma concentration) and cell death events were measured. The extent of cell death was determined either using Varioskan LUX platform or by fluorescence-based staining of live / dead cells. Percent cell death was calculated to evaluate the response level of the drug.

Appropriate positive and negative controls were tested and evaluated in a similar manner simultaneously with the test sample and performed satisfactorily.

Analytical Validation of this assay shown sensitivity of 99.99% and specificity 99.99%.

LIST OF DRUGS TESTED

5-Fluorouracil/Capecitabine, Bleomycin, Cabazitaxel, Carboplatin, Cisplatin, Cyclophosphamide, Dacarbazine, Dactinomycin, Docetaxel, Doxorubicin, Epirubicin, Eribulin, Etoposide, Gemcitabine, Ifosfamide, Irinotecan, Melphalan, Methotrexate, Mitomycin, Mitoxantrone, Oxaliplatin, Paclitaxel, Pemetrexed, Temozolomide, Topotecan, Trabectedin, Vinblastine, Vincristine, Vinorelbine.

DISCLAIMER

Chemo-scale test report is not intended to be a substitute for care by a licensed healthcare professional. The information provided in this report is not a substitute for medical advice, diagnosis, treatment or a full medical evaluation. All laboratory test results must be interpreted within the context of a patient's overall health and should be used along with other examinations or tests. MolQ Laboratory is not responsible for and does not accept the liability for any direct or indirect loss or damages arising from, or related to, the use of this information. This is not a prescription.

Cancer therapy selection, dosing, administration, and the management of related adverse events can be a complex process that should be handled by an experienced healthcare team. Clinicians must choose and verify treatment options based on the individual patient; drug dose modifications and supportive care interventions should be administered accordingly. The suggested treatment regimens may include both USFDA-approved and unapproved indications/regimens. Therapy Recommendations are a work in progress that may be refined as often as new significant data becomes available. This test s conducted at the reference laboratory. Any clinician seeking to apply or consult reference laboratory's Therapy Recommendations is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment. MolQ Laboratory makes no warranties of any kind whatsoever regarding their content, use, or application and disclaims any responsibility for their application or use in any way.

Results of Chemo-scale test are based on in-vitro testing of cancer cells under controlled laboratory conditions and may not exactly replicate in-vivo (within the patient's body).

This report should be read as a whole and used and acted upon by a registered medical practitioner only. This is not a prescription.

REFERENCES

1. Akolkar DB, Crook T, Page R, Patil D, Limaye S, Datta V, et al. Liquid biopsies to enable non-invasive real-time functional chemoresistance profiling in solid organ cancers. Journal of Clinical Oncology 38, no. 15_suppl (May 20, 2020) 3525-3525.
2. Crook T, Gaya A, Page R, Limaye S, Ranade A, Bhatt A, et al. Clinical utility of circulating tumor associated cells to predict and monitor chemo-response in solid tumors. Cancer chemotherapy and pharmacology. 2021 Feb;87(2):197-205.

3. Nagarkar R, Patil D, Crook T, Datta V, Bhalerao S, Dhande S, et al. Encyclopedic tumor analysis for guiding treatment of advanced, broadly refractory cancers: results from the RESILIENT trial. Oncotarget. 2019 Sep 24;10(54):5605.
4. NCCN Clinical practice guidelines in oncology. Head and Neck Cancers. 2024.
5. Schuster S, Akolkar D, Patil S, Patil D, Datta V, Srinivasan A, et al. In vitro functional interrogation of viable circulating tumor associated cells (C-TACs) for evaluating platin resistance. Annals of Oncology. 2019 Oct 1;30:v793.

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