

"E A. C. T" & "A.C.T" - The Standard Combination Chemotherapies  
for the Effective Treatment of Malignant and Benign Types of  
Breast Cancer Without the Risk of any Side Effects or Toxicities.

By

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## **Global Cancer Burden:**

Cancer has zero tolerance for tribe, race, religion, geographical location, or family background; hence, fighting against the disease is a collective responsibility involving various individuals serving in different areas of human endeavors, such as healthcare workers, governmental and non-governmental organizations, Private and Public Hospitals, Pharmaceutical Industries stakeholders, and wealthy individuals.

Cancer is the leading cause of death worldwide, ranking above coronary heart disease and stroke. Nearly 10 million people died from cancer in the year 2020, representing one in every six deaths (WHO, 2022)

Breast cancer is the number one cancer in women, with 2,296,840 new cases in 2022. It accounts for 670,000 deaths globally and affects the overall well-being of the affected woman in key areas such as survival expectancy, mental health, financial burden, and marital stability.

## **Identified problem:**

The side effects and toxicities associated with the two types of combination chemotherapy commonly used either separately or alongside other types of therapy (surgery or radiation) in the treatment of breast cancer, namely TAC (Taxotere, Adriamycin, and Cyclophosphamide) and AC (Adriamycin and Cyclophosphamide), provide strong evidence that new combinations need to be developed that have greater efficacy with minimal side effects or toxicities.

The following side effects and toxicities are very common in association with the above combination chemotherapies, with slight variations: Increased risk of infection, low red and white blood cell counts, fatigue, loss of appetite, hair loss, mouth sores, erythema, bladder irritation, nausea and vomiting, diarrhea or constipation, etc.

## **Research Instrument:**

The Super computational formula is the similarity of a human computer that enables us to convert any disease written using the letters of the English Alphabet into its numerical composition and uses the discrete numbers involved to understand the language that was used to create a disease and its treatments based on the concept of clustering. It is mathematically represented as:

Input =  $[0^I \times Q]$  a Slide per Letter.

## **Brief Meaning Of The Acronyms:**

O - Stands for the Overall Number of All The Letters Of the English Alphabet

I - Stands for the Indexes to Which The Overall Number of all the Letters of the English Alphabet Will Be Multiplied By Itself. Indexes Depend On The Number Of Letters Inside a Word.

Q - Stands for the Quantity of Each Letter Of the English Alphabet When They Are Arranged Alphabetically.

e.g. a-0, b-1, c-2, d-3, e-4,..... z-25

Input - is any disease written using the letters of the English Alphabet e.g malaria

**The algorithm upon which the supercomputational formula operates is as follows:**

We need **input**, we need to **compute**, we need **output**, and we need to **interpret**.

## **Method & Result:**

"E A .C.T" & "A.C.T" are the abbreviations for the drugs that form the standard combination chemotherapies (Exemestane, Anastrozole, Carboplatin, and Tamoxifen) & (Anastrozole, Carboplatin, and Tamoxifen) for the effective treatment of Malignant and Benign types of Breast Cancer respectively without the risk of any side effects or toxicities. The combinations are the first of their kinds to be developed using a supercomputational formula. The new combinations are currently awaiting clinical trials involving human subjects. Each has met all the major combination requirements: Drug Dosage Form, Drug Doses, Duration of Medication, Frequency of Medication, and a Therapeutic Diet (solid or liquid) to be taken Before Drug Administration.

## **Conversion of Breast Cancer into its numerical composition**

Input: Breast Cancer

Data

O- 26

I-6 letter Words: 5,4,3,2,1,0/5,4,3,2,1,0

Q- a-0, b-1, c-2, d-3, e-4, .....z-25

Computing:

$$b[26^4x1] + r[26^4x17] + e[26^3x4] + a[26^2x0] + s[26^1x18] + t[26^0x19] /+ / c[26^5x2] + a[26^4x0] + n[26^3x13] + c[26^2x0] + e[26^1x4] + r[26^0x17]$$

Output:

[19720759] + [23992713]

[43713472]- The Numerical Compositions of the term "Breast Cancer"

1st Almighty numerical source code: <43714>

2nd Almighty numerical source code: <3713>

3rd Almighty numerical source code: <71347>

From the first almighty numerical source code <43714>, if the first and the last number represent the overall number of drugs required to produce the standard combination chemotherapy for the effective treatment of a Malignant type of breast cancer, then what are they:

Input(i): Exemestane

Computing:

$$e[26^9x4] + x[26^8x23] + e[26^7x4] + m[26^6x12] + e[26^5x4] + s[26^4x18] + t[26^3x19] + a[26^2x0] + n[26^1x13] + e[26^0x4]$$

Output:

[26556927516526]-The Numerical Compositions of the term "Exemestane"

[2+6+5+5+6+9+2+7+5+1+6+5+2+6]

[67]

[6+7]

[13]

[1+3]

[4!] - [4!-3-7-1-4!]

Input(ii): Anastrozole

Computing:

$$a[26^9x0] + n[26^9x13] + a[26^8x0] + s[26^7x18] + t[26^6x19] + r[26^5x17] + o[26^4x14] + z[26^3x25] + o[26^2x14] + l[26^1x11] + e[26^0x4]$$

Output:

[70734198639810]-The Numerical Compositions of the term "Anastrozole"

[7+0+7+3+4+1+9+8+6+3+9+8+1+0]

[66]

[6+6]

[12]

[1+2]

[3!] - [4-3!-7-1-4]

Input(iii): Carboplatin

Computing:

$c[26^{10 \times 2}] + a[26^9 \times 0] + r[26^8 \times 17] + b[26^7 \times 1] + o[26^6 \times 14] + p[26^5 \times 15] + l[26^4 \times 11] + a[26^3 \times 0] + t[26^2 \times 19] + i[26^1 \times 8] + n[26^0 \times 13]$

Output:

[285896791296025]-The Numerical Compositions of the term "Carboplatin"

[2+8+5+8+9+6+7+9+1+2+9+6+0+2+5]

[79]

[7+9]

[16]

[1+6]

[7!] - [4-3-7!-1-4]

Input(iv): Tamoxifen

Computing:

$t[26^8 \times 19] + a[26^7 \times 0] + m[26^6 \times 12] + o[26^5 \times 14] + x[26^4 \times 23] + i[26^3 \times 8] + f[26^2 \times 5] + e[26^1 \times 4] + n[26^0 \times 13]$

Output:

[3971598210073]-The Numerical Compositions of the term "Tamoxifen"

[3+9+7+1+5+9+8+2+1+0+0+7+3]

[55]

[5+5]

[10]

[1+0]

[1!] - [4-3-7-1!-4]-hence the first combination chemotherapy has been developed (EACT)

From the second almighty numerical source code <3713>, if the first and the last number represent the overall number of drugs required to produce the standard combination chemotherapy for the effective treatment of a Benign type of breast cancer, then what are they:

Noted-All of the above without the exemestane:

Input(i) : Anastrozole

Computing:

$$a[26^9x0] + n[26^9x13] + a[26^8x0] + s[26^7x18] + t[26^6x19] + r[26^5x17] + o[26^4x14] + z[26^3x25] + o[26^2x14] + l[26^1x11] + e[26^0x4]$$

Output:

[70734198639810]-The Numerical Compositions of the term "Anastrozole"

$$[7+0+7+3+4+1+9+8+6+3+9+8+1+0]$$

$$[66]$$

$$[6+6]$$

$$[12]$$

$$[1+2]$$

$$[3!] - [3!-7-1-3]$$

Input(ii): Carboplatin

Computing:

$$c[26^{10}x2] + a[26^9x0] + r[26^8x17] + b[26^7x1] + o[26^6x14] + p[26^5x15] + l[26^4x11] + a[26^3x0] + t[26^2x19] + i[26^1x8] + n[26^0x13]$$

Output:

[285896791296025]-The Numerical Compositions of the term "Carboplatin"

$$[2+8+5+8+9+6+7+9+1+2+9+6+0+2+5]$$

$$[79]$$

$$[7+9]$$

$$[16]$$

$$[1+6]$$

$$[7!] - [3-7!-1-3]$$

Input(iii): Tamoxifen

Computing:

$t[26^8 \times 19] + a[26^7 \times 0] + m[26^6 \times 12] + o[26^5 \times 14] + x[26^4 \times 23] + i[26^3 \times 8] + f[26^2 \times 5] + e[26^1 \times 4] + n[26^0 \times 13]$

Output:

[3971598210073]-The Numerical Compositions of the term "Tamoxifen"

[3+9+7+1+5+9+8+2+1+0+0+7+3]

[55]

[5+5]

[10]

[1+0]

[1!] - [3-7-1!-3], hence the second combination chemotherapy has been developed (ACT)

## References:

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