

# Quality of Life of Breast Cancer Patients Undergoing Chemotherapy at Hasan Sadikin Hospital Bandung

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Breast cancer, the most common type of cancer diagnosed in women, is characterised by the growth of abnormal cells in the breast tissue. Chemotherapy is one of the main treatment methods for breast cancer, aimed at destroying cancer cells. Although effective, chemotherapy may cause various side effects that affect patients' quality of life. This study aimed to determine the quality of life of breast cancer patients undergoing chemotherapy at Hasan Sadikin Hospital Bandung. The study design was descriptive observational of breast cancer patients undergoing chemotherapy. The sample consisted of 35 individuals who met the inclusion criteria, selected using a consecutive technique. The instrument for measuring quality of life used the standard EORTC QLQC-C30, which measures global health status, functional scales, and symptom scales. The research results show that the quality of life of breast cancer patients undergoing chemotherapy has a global health status in the good category (73.8), functional scale in the good category (78.2), and symptom scale in the low category (28.6). The average quality of life of the patients is in the moderate category with a score of 685.8. Discussion, although global health status and functional scale are considered good, symptoms such as insomnia, vomiting, and decreased appetite remain a challenge. Ini mempengaruhi aktivitas sehari-hari dan hubungan sosial, yang dapat memperburuk ketidakseimbangan emosional dan psikologis pasien.

**Keywords:** Breast Cancer, Chemotherapy, Quality of Life, EORTC QLQ-C30 Questionnaire.

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## 1. Introduction

Cancer is something disease characterized by with growth cells that are not controlled and spread abnormal cells. Cells This can grow more Far as well as spread to part another body resulting in death. <sup>1</sup> Cancer breast become disease the most common cancer as well as dangerous as well as become reason main death related cancer in women in developed countries. <sup>2</sup> Cancer breast become the most common cancer diagnosed in women, counted more of 1 in 10 cancer diagnoses new every year. <sup>3</sup> *The World Health Organization* (WHO) in 2020 reported that reason death consequence the most common cancer, namely cancer breast amounting to 2.26 million cases. Incidence rate cancer increase in a way significant along increasing age. <sup>4</sup> According to *Global Burden of Cancer* (GLOBOCAN) 2022 cancer breast is reason main 5th related death cancer, with estimation amount as many as 2.3 million cases worldwide. <sup>5</sup> In Indonesia, the number of case cancer breast found in 2020 reached 65,858 cases and 22,430 deaths consequence breast cancer. <sup>6</sup> *The International Agency for Research on Cancer Indonesia* (IARC) reported that cancer breasts in Indonesia occupy ranking First with number incidence of 16.6% of all over population women in Indonesia. <sup>7</sup>

Research in Hasan Sadikin Hospital Bandung (2022), obtained patient most come with lumps in the breast (66.4%), mostly in the left breast (45.0%). Based on the clinical stage, cases most are advanced stage and local stage, with stage IV as many as 86 cases (30.7%), followed by stage IIIB as many as 27 cases (9.6%). Both stages of cancer breast the often occurs in groups aged 45–54 years.<sup>8</sup> Sufferer cancer breast malignant at the stage carry on or who has metastasize generally undergo chemotherapy as one of the choice treatment. The main goal chemotherapy is For oppose disease as well as extend hope patient's life.<sup>9</sup> Chemotherapy capable given before operation (*neoadjuvant*) to shrink size tumor, or after surgery (adjuvant) for handle cancer breast related with receptors hormones and ERBB2 (*Erb-B2 Receptor Tyrosine Kinase 2*).<sup>10</sup> Chemotherapy generally held in six until eight series, depending on conditions patients. The frequency capable varies in accordance with the stage of cancer, the goal treatment, type drug cytotoxics used, as well as response body patient to therapy.<sup>11</sup> Effect the most common side from chemotherapy including nausea, vomiting, hair fall out, decrease weight gain, constipation and diarrhea. Not only impact on physical patients, chemotherapy also has impact bad psychologically patients. Like loss of trust self, and causes trauma to the patient, this This affect the future treatment process carried out by the patient.<sup>12</sup> Control effect the side that is not appropriate can in a way significant lower quality life someone and influence daily life.<sup>13</sup>

Quality life refers to perception somebody to condition himself, which includes aspect physical, psychological, social, and environment in effort fulfil needs also reach life satisfaction.<sup>11</sup> Quality life is factor important in evaluate effect treatment and ability functional patient throughout his life.<sup>14</sup> Patient cancer breast often experience decline quality life is influenced by various factors, for example anxiety towards the future, sustainability work, change image self, life sexual, possible relapse disease, as well as the treatment process that should be lived. Condition psychological they can worsening in a way significant, which leads to depression, anxiety disorders function physical, as well as decline social activities.<sup>15</sup>

Research at the University Kebangsaan Malaysia Medical Centre (UKMMC) (2022) found that aspect mobility, care self, activity everyday, pain or No comfortable, and anxiety experience various level disturbance. Research data report that patients undergoing chemotherapy face significant challenges in various aspect quality life they. Many patients report that chemotherapy is not only impact on conditions physique but also hinders ability they in undergo activity daily normally. Pain and discomfort is complaint common among patient, pain chronic can reduce quality life in a way significant, resulting in disturbance sleep and improvement fatigue. Anxiety level as well as high depression found in patients, stress emotional often exacerbated by uncertainty about effectiveness treatment and fear will disease recurrence.<sup>16</sup> According to background behind on researchers interested in continuing study related to " Patient Quality of Life" Cancer Breast who is undergoing Chemotherapy at Hasan Sadikin Hospital Bandung."

## 2. Materials and Methods

Study This will use method descriptive observational. Retrieval sample using *non-probability sampling* with use technique *consecutive sampling*. Samples in study This is patient cancer medium breasts undergo chemotherapy at Hasan Sadikin General Hospital, Bandung, as many as 35 respondents. The study This has get agreement ethics from Committee Ethics Research of Hasan Sadikin General Hospital, Bandung No.DP.04.03/D.XIV.6.5/476/2024. Before do research data collection request agreement with sign sheet *informed consent*, after get agreement from respondents researchers interview respondents use EORTC QLQ- C30 questionnaire. Questionnaire This consists of of 30 questions divided into 3 parts main. Result data study analyzed using univariate tests.

### 3. Results and Discussion

#### Characteristics Subject Study

Characteristics subject study patient cancer breast covers various aspect important like age, type gender, cancer stage, cycle chemotherapy, and chemotherapy regimen. undergo chemotherapy categorized based on 5 groups age, namely 26-35 years, 36-45 years, 46-55 years, 56-65 years, >65 years and based on type gender, presented in Table 1 below This. Table 1 shows that part big patient cancer breasts undergoing chemotherapy at Hasan Sadikin General Hospital, Bandung, aged 46-55 years (31.4%) and 36-45 years (31.4%), while based on type sex almost all over patient various sex women (97.1%).

**Table 1** Distribution Patient Based on Age and Gender

Characteristics	Total (n=35)	%
<b>Age ( Years )</b>		
26-35	2	5.7
36-45	11	31.4
46-55	11	31.4
56-65	9	25.7
>65	2	5.7
<b>Gender</b>		
Man	1	2.9
Woman		97.1
<b>Total</b>	<b>35</b>	<b>100.0</b>

Distribution overview patient Which 40 years old to on is risky age big caught cancer breast cancer breast start develop fast moment aged 40-49 years, whereas risk cancer breast Alone develop until 50 years old with comparison The chance is 1 in 50 years for women.<sup>17</sup> This result in accordance with research at the Bandung Cancer Society in 2020, showed that part big respondents (43.34%) were in range aged 46-55 years, which includes to in category carry on age early. The results of another study at Sanglah General Hospital, Denpasar in 2019, showed that respondents aged between 40-59 years reached 71.7%, while respondents aged 41-50 years reached 25%.

In a way general, cancer breast more often occurs in women, but men are also at risk experience disease this, although with relative percentage small, namely about 1.1% of overall case cancer breast. Detection early cancer breasts in men are very important, because disease This capable have fatal consequences such as as in women.

**Table 2.** Distribution Patient Based on Cancer Stage

Cancer stage	Amount	%
II	9	25.7
III	22	62.9
IV	4	11.4
Total	35	100.0

Table 2 shows that part big patient cancer breasts undergoing Chemotherapy at Hasan Sadikin General Hospital, Bandung, was mostly for stage III cancer (62.9%). Research result This in line with research at RSUCM North Aceh in 2022, which showed that part big patients (73.6%) suffered from cancer breast stage III.<sup>18</sup>

**Table 3.** Distribution Patient Based on Cycle Chemotherapy

Cycle hemotherapy	Amount	%
4	13	37.1
5	14	40.0
6	8	22.9
Total	35	100.0

Table 3 shows amount cycle chemotherapy received by patients undergoing chemotherapy at most 5 cycles (40%). The longer the cycle chemotherapy, patients tend more capable overcome symptoms that arise Because has accustomed and understand method handle it with better.<sup>19</sup> Treatment chemotherapy generally consists of from a number of cycle that includes maintenance term long, so that patient have time For adapt with effect the side that happened.<sup>20</sup> Patient cancer breast Which undergo chemotherapy accept various combination drug chemotherapy (regimen) presented in Table 4 below This.

**Table 3** is description characteristics patient cancer breast based on cycle chemotherapy.

Regimen	Amount	%
Adriamycin + Cyclophosphamide	1	2.9
Atezolizumab + Capecitabine	1	2.9
Docetaxel	3	8.6
Docetaxel + Atezolizumab	1	2.9
Docetaxel + Carboplatin	3	8.6
Docetaxel + Cyclophosphamide	6	17.2
Doxorubicin + Cyclophosphamide	4	11.5
Epirubicin	1	2.9
Eribulin	2	5.7
Gemcitabine	1	2.9
Paclitaxel	2	5.7
Paclitaxel + Atezolizumab	1	2.9
Paclitaxel + Carboplatin	5	14.3
Paclitaxel + Gemcitabine	1	2.9
Paclitaxel + Cyclophosphamide	2	5.8
Vinorelbine	1	2.9
<b>Total</b>	<b>35</b>	<b>100.0</b>

Table 4. shows that part big patient cancer breast undergo chemotherapy received the Docetaxel + Cyclophosphamide regimen (17.2%). Class drug cytotoxic agent the most common single used including taxanes ( *docetaxel, paclitaxel, nab-paclitaxel* ), anthracyclines ( *doxorubicin, epirubicin, pegylated liposomal doxorubicin* ), and *capecitabine*. Taxanes is agent the most common chemotherapy used For cancer breast metastasis. Anthracycline used For treat cancer early stage breast cancer. Anthracycline functioning with form complex with DNA and topoisomerase II, induces apoptosis and inhibits DNA synthesis. The most common regimen used is combination anthracyclines and taxanes like *doxorubicin + paclitaxel, or docetaxel or doxorubicin, and docetaxel + cyclophosphamide*.<sup>21, 22</sup>

### Patient Quality of Life Overview

Quality life patient cancer breasts undergoing chemotherapy use EORTC QLQC30 questionnaire, differentiated based on global health status, scale functional, and scale symptom.

**Table 5.** Distribution Patient Quality of Life

No	Domain	Score	Category
1	<b>Global health status</b>	73.8	Good
2	<b>Functional scale</b>	71.52	Good
	Function physique		
	Function role	71.43	Good
	Function Emotional	79.0	Good
	Function cognitive	87.62	Good
	Function social	81.4	Good
	<b>Total score</b>	391.0	
	<b>Average</b>	78.2	Good
3	<b>Symptom Scale</b>	37.78	
	Fatigue		Currently
	Nausea and vomiting	26.2	Low
	Painful	26.67	Low
	Congested breath	8.6	Low
	Insomnia	33.3	Currently
	Decline lust Eat	35.2	Currently
	Constipation	13.3	Low
	Diarrhea	17.1	Low
	Obstacle finance	22.9	Low
	<b>Total score</b>	221.1	
	<b>Average</b>	24.6	Low
4	<b>Quality of Life</b>	685.8	Currently

research results in Table 5 show quality life patient cancer breasts undergoing chemotherapy own score 685.8. Quality score life This including in category moderate, meaning evaluation from three scale, namely global health status, scale functional, and scale symptom show varying results. Global health status and scale functional have a good average, showing that patient capable undergo activity daily with good. Condition able patients undergo activity with good very important For mental and emotional health they. Assessment on a scale functional show score highest in function cognitive (87.62) that patient Still own ability good memory and concentration. Most of the respondents generally report that they No feel significant changes in pattern think they related ability remembering and concentrating after maintenance chemotherapy. On the other hand, the average value on the scale symptoms (24.6) including in category low. This is show that symptoms experienced by sufferers cancer breasts undergoing chemotherapy, such as fatigue, insomnia, decreased lust eating, nausea, vomiting, pain, constipation, and diarrhea, difficulty For avoided and sufficient influence individual. In general, nausea and vomiting consequence chemotherapy considered as effect most disturbing side, impactful significant on quality life patient.

In a way theory, chemotherapy can make things worse symptom physique such as insomnia, vomiting, fatigue, and decreased lust eating. It is also capable of impact on activities daily life, relationships with other people, which is ultimately can make things worse imbalance emotional and psychological effects. side This can affect the quality patient's life. <sup>23</sup>

#### 4. Conclusion

Characteristic description patient cancer breasts undergoing chemotherapy at Hasan Sadikin General Hospital, Bandung, partly big aged 46-55 years, cancer stage III, Docetaxel + Cyclophosphamide regimen, Quality of Life of Breast Cancer Patients Undergoing Chemotherapy at Hasan Sadikin Hospital Bandung. Lukmana Lokarjana et.al

number of cycle chemotherapy accepted as many as 4 and 5 cycles. Quality overview life patient cancer breasts undergoing chemotherapy at Hasan Sadikin General Hospital, Bandung, partly big is in the category moderate. Quality life based on global health status and scale functional including category good. On a scale symptom is at in category low.

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