

Quality of life of patients with HBV infection – case study with SF-36

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INTRODUCTION

- ❑ There are three basic goals laying down the therapeutic behavior during the treatment process of hepatitis infection:
 - to cure patient,
 - to extend his life;
 - to improve his quality of life (Qol).
- ❑ Studying the Qol of hepatitis infected patients is important to reveal not only the treatment progress but also vitality, energy and overall self perception of the health state of the patients.
- ❑ It is also important for further cost-effectiveness studies to answer to the question “Does the therapy cost worth the improvements in the QoL”

GOAL

- To evaluate the quality of life of patients with hepatitis A and B.

STUDY QUESTIONS

- Does the QoL of patients with hepatitis A and B changes during the treatment process?
- Which aspects of the QoL are changing and which are not?
- Is the SF-36 suitable for the evaluation of the QoL of patients with hepatitis in Bulgaria?

Philosophy of the QoL measurement

- Quality of life (QoL) can mean:
 - ➔ different things
 - ➔ to different people
 - ➔ at different times
- Quality of life is a:
 - ➔ complex,
 - ➔ abstract, and
 - ➔ multidimensional state.

Theoretical concepts and definitions of the QoL

- The term *quality of life* is used to perform an individual's satisfaction or happiness with life in domains that persons considers important.
- The life domains could be from:
 - ➔ social,
 - ➔ psychological,
 - ➔ health or other origin.

Health related quality of life (HRQoL)

- WHO definition:
 - ➔ Health is a “state of complete physical, mental and social well being and not merely the absence of disease or infirmity”
- Health-related quality of life (HRQoL) is an individual’s satisfaction or happiness with domains of life that affect or are affected by “health”.
- HRQoL can be distinguished from quality of life as it is connected with those factors that fall under the competence of health care providers and health care systems.

Health related quality of life (HRQoL)

- The HRQoL is the main **humanistic outcome** from the therapeutic process.
- Domains of the HRQoL usually include:
 - ➔ functional health (physical activity, mobility and self care),
 - ➔ emotional health (anxiety, stress, depression, spiritual well being)
 - ➔ social and role functioning (personal and community interaction, works and household activities),
 - ➔ cognitive functioning (memory),
 - ➔ perception of general well being and life satisfaction, perceived symptoms.

Measuring HRQol with SF36

- The SF-36 is a multi-purpose, short-form health survey. SF-36 measure the quality of life via physiological and mental functions in eight scale:
 - physical functioning;
 - role limitations;
 - bodily pain;
 - social functioning;
 - general mental health;
 - role limitations due to emotional problems;
 - vitality, energy or fatigue;
 - general health perceptions and health compared to last year.

Each response to a question is converted to a 0-100 value, with a higher score indicating a more favorable state.

SF 36 for the assessment of the quality of life

This survey asks for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities. Answer every question by marking the answer as indicated. If you are unsure about how to answer a question, please give the best answer you can.

- 1. In general would you say your health is:
 - excellent
 - very good
 - good
 - fair
 - poor
- 2. Compared to one year ago, how would you rate your health in general now?
 - much better now than one year ago
 - somewhat better now than one year ago
 - about the same now as one year ago
 - somewhat worse now than one year ago
 - much worse now than one year ago

Materials and Methods

- The study was a prospective observational 3 months study.
- **25 patients** with hepatitis A (8) and B (17) aged 25 to 54 years, treated in one hospital's department in Sofia was observed and interviewed at the beginning and at the end of the period.
- The treatment progress was evaluated on the basis of the results of hepatic enzymes test and the changes in the QoL was assessed via **SF-36**. In total **50 questionnaires** were processed.
- It was also calculated the cost of the treatment and compared with the therapeutic results that is not included in this presentation. The **cost per patient improvement** and **cost of quality of life improvement** was evaluated.

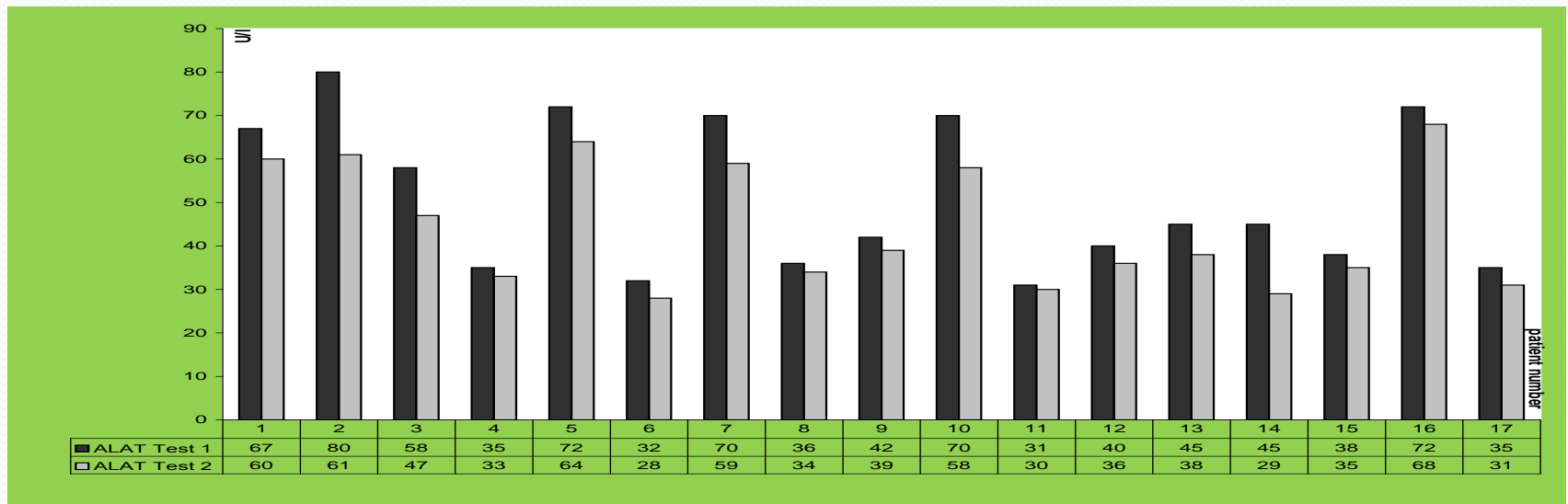
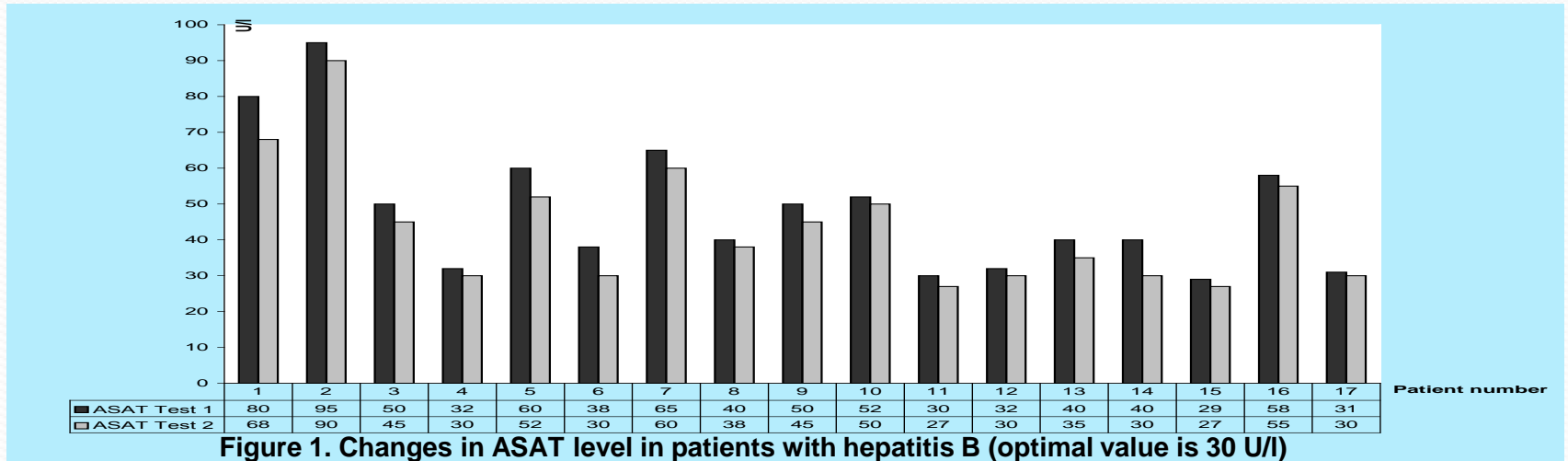
Table 1. Score changes during SF-36 questioning of patient with Hepatitis A

Patient number		1	2	3	4	5	6	7	8
Maximal points		100	100	100	100	100	100	100	100
Physical functioning	Test 1	100	94	100	89	78	89	89	78
	Test 2	100	94	100	94	100	89	89	89
Role limitations	Test 1	100	100	100	75	75	50	100	100
	Test 2	100	100	100	100	100	75	100	100
Social functioning	Test 1	75	64	100	88	100	100	76	100
	Test 2	100	100	100	100	100	100	100	100
General Mental Health	Test 1	60	100	76	68	76	68	76	76
	Test 2	72	100	76	76	76	76	89	100
Role limitations due to emotional problems	Test 1	33	50	67	100	100	100	100	67
	Test 2	67	60	100	100	100	100	100	67
Vitality, Energy or fatigue	Test 1	40	60	65	50	60	30	45	40
	Test 2	50	60	70	65	70	50	55	40
General health perceptions	Test 1	65	65	66	60	60	50	60	60
	Test 2	65	65	66	70	65	65	60	60

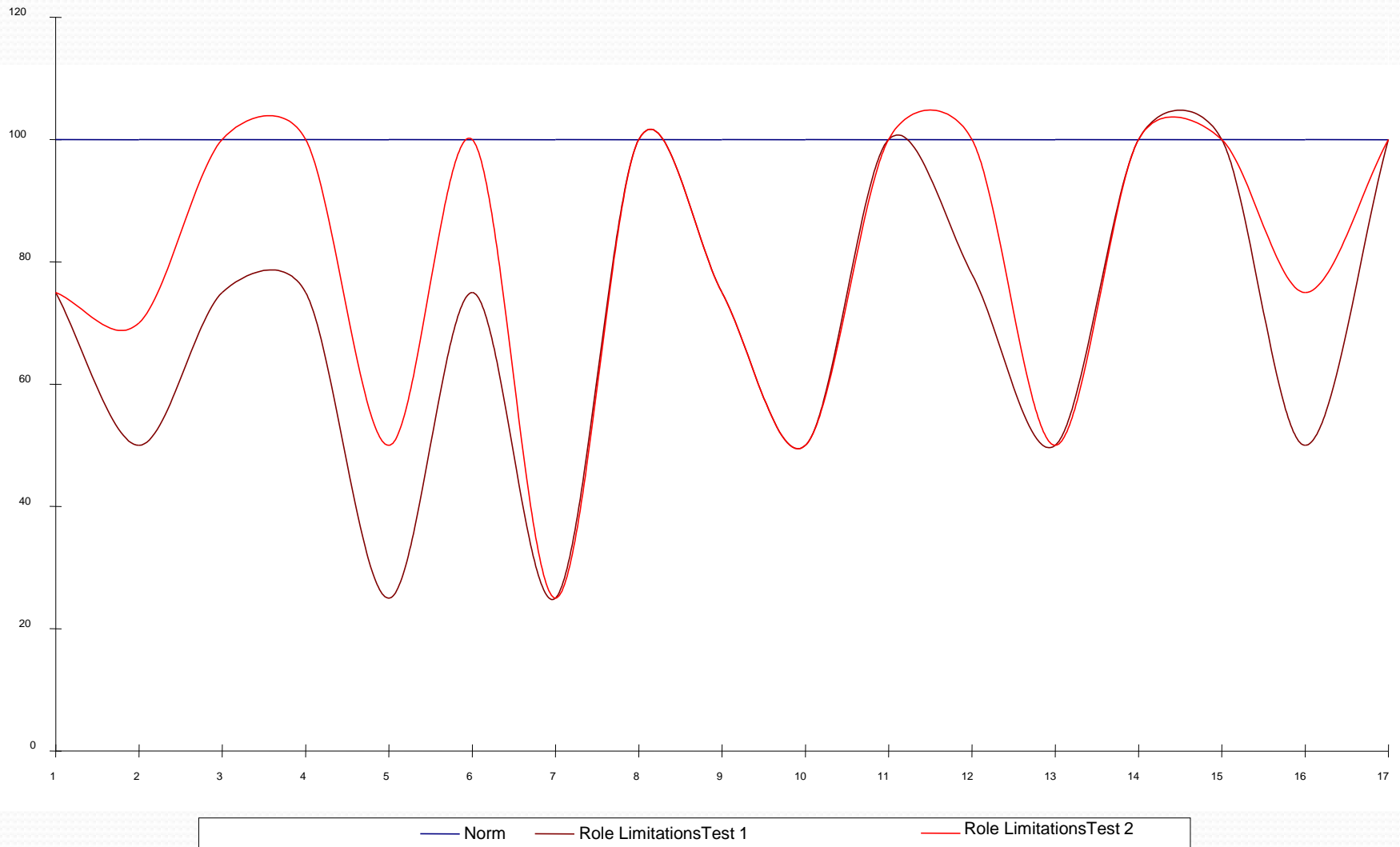
Table 2. Score changes during SF-36 questioning of patient with hepatitis B

Patient number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Maximal points</i>		<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
Physical functioning	Test 1	94	89	100	100	72	89	72	89	89	72	83	83	72	89	83	89	78
	Test 2	94	89	100	100	72	94	72	89	89	72	94	83	72	100	94	89	89
Role Limitations	Test 1	75	50	75	75	25	75	25	100	75	50	100	78	50	100	100	50	100
	Test 2	75	70	100	100	50	100	25	100	75	50	100	100	50	100	100	75	100
Social Functioning	Test 1	88	100	100	100	50	75	50	100	100	75	100	100	100	100	100	100	100
	Test 2	88	100	100	100	63	100	50	100	100	75	100	100	100	100	100	100	100
General Mental Health	Test 1	60	60	68	84	24	52	28	64	72	66	72	68	64	72	72	60	68
	Test 2	68	64	72	84	44	68	44	72	72	66	72	68	64	72	72	76	76
Role Limitations due to Emotional Problems	Test 1	100	100	100	100	33	67	33	67	100	67	100	67	67	100	100	100	100
	Test 2	100	100	100	100	67	100	67	100	100	100	100	67	67	100	100	100	100
Vitality, Energy or Fatigue	Test 1	60	40	40	60	10	25	15	60	50	20	40	30	30	40	30	25	40
	Test 2	60	45	55	60	30	50	25	60	50	20	50	50	30	50	40	40	40
General Health Perceptions	Test 1	70	50	55	65	10	55	35	60	40	25	65	45	55	60	55	40	60
	Test 2	70	55	65	65	20	60	35	65	40	25	70	50	55	60	60	40	60

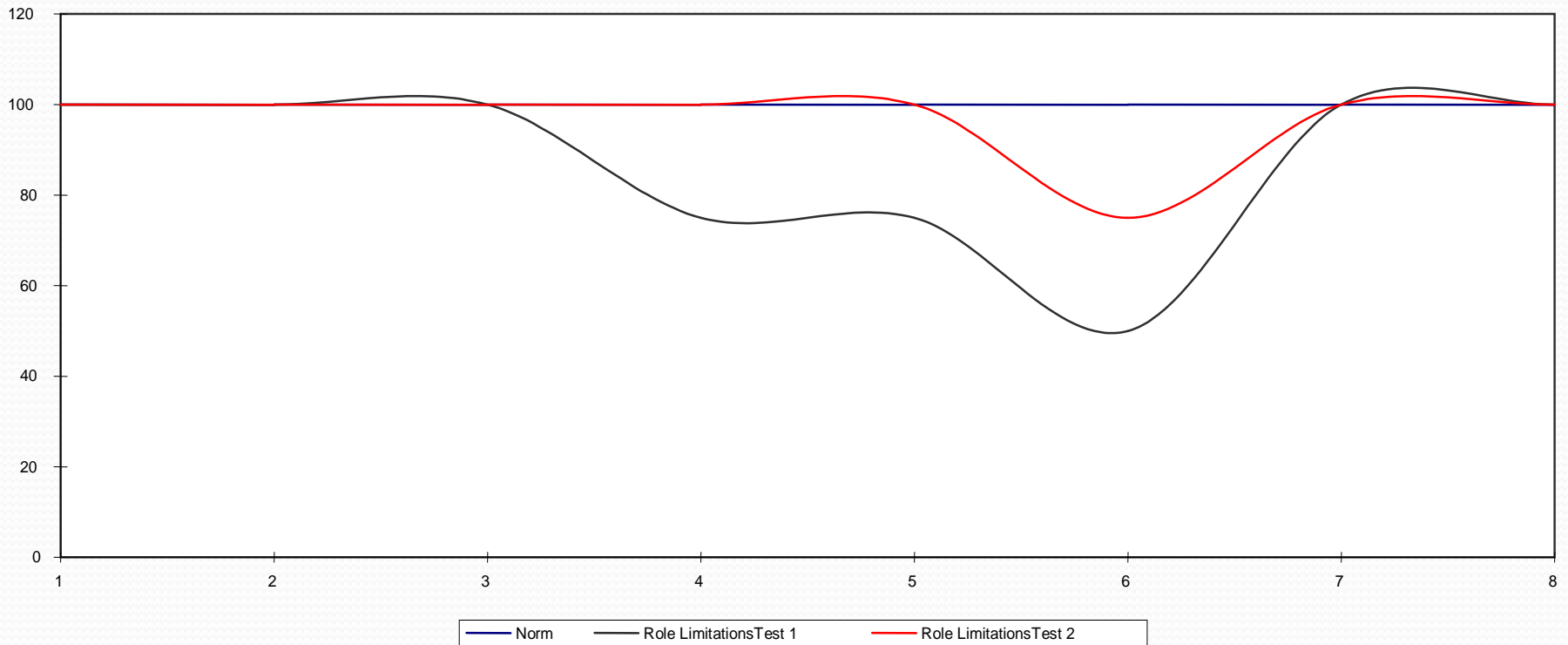
Changes in the enzymes level



Changes in the role limitations in one patients with Hepatitis B- before and after the therapy



Changes in the role limitations in one patients with Hepatitis A- before and after the therapy



Comment and conclusion

- The quality of life results could be commented from several points of view. In comparison with the literature data the quality of life of Bulgarian patients improves with 3 to 9 points on average that is insignificantly higher than the other published results. It means that SF-36 is suitable for evaluating the quality of life of patients with hepatitis and provides compatible information.
- The average improvement in the social functioning and vitality is similar in patients with hepatitis A and B but the physical functioning is with lower quality in patients with hepatitis B.
- Measuring the quality of life is important for objective evaluation of the treatment results and follow up of the patients.
- The use of SF-36 allows easy to check the treatment progress for patients with the diseases requiring longer and spare care.

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- Thank you for your attention!