

THE CRITICAL REVIEW OF A PAPER

SAMPLE

Table of Contents

Introduction..... 3

1. Economic research questions..... 3

2. Intervention comparison 3

3. The clinical basis..... 4

4. Name the origin of the perspectives from whom the economic analysis was conducted.....4

5. cost and outcomes of economic evaluation 5

6. cost units and range and their issues 5

7.State the formulations of the price and the results 5

8. Discount of points or cost. 6

9. Consideration of incremental and marginal analysis 6

10. Conduct of sensitivity analysis 6

11. Comparison of the results. 7

12. Implications of policy and the usefulness of study..... 7

Conclusion 8

Reference list 9

SAMPLE

Introduction

The paper is discussing the impacts of type 2 diabetes in the European population. Almost 5% of the people are affected, and its adverse effect can be seen on the inappropriate utilisation of the health service resources. According to the national service framework, it is suggested that proper education to the type 2 patient should be given from the initial stage. The assignment will follow several questions to analyse the paper critically. The primary outcome of the article is to measure the increased cost and Quality-adjusted life of years (QALY) earned. The need for knowledge of diabetes and DESMOND comparison with the daily or usual care in type- 2 diabetes will be done. The cost-utility analysis done in the research will be used to answer the questions.

1. Economic research questions.

The research question is to find out the treatment provided in the normal course in comparison with the DESMOND (Stacks *et al.* 2014). The services that are provided in the clinics and the cost associated with those services in type 2 diabetes. The self-management for the running and newly developed has also been taken into consideration. The care trusts in the UK and number of patients newly acknowledged with type 2 diabetes has been taken into consideration in economic research questions. The increasing cost of the treatment and the cost-utility analysis has also been taken into consideration. The lifestyle and diet of the affected persons are also been considered in the economic research questions. The weight of the patients and the smoking habits have been analysed in the research questions. (Bowling, 2014).

2. Intervention comparison

The interruption is being compared with the practices done by the Best Care in present times in their general practices. The teams of the Best Care are the trained ones and are providing active management including the services for the patients like the Back Book. The clinical expenditure associated with the costing facility available to the patients with DESMOND in comparison to the services provided to the patients in general setting has been taken into consideration. How type 2 diabetes has affected the people in the European countries, and the entry analyzed survey has been compared to reach to the possible outcomes. The

intervention is being generally compared with the services provided in the big health care units in comparison with the general services provided by small units in type 2 diabetes. (Green *et al.* 2015).

3. The clinical basis

The evaluation of the economic terms was reliable on the research of the DESMOND practices. The DESMOND practice was based on the effectiveness of the clinical services regarding the intervention so far acknowledged. The trial of the DESMOND is incidental and based on calculating the effectiveness of the treatments based on a physical background (attributes instead of basis) which includes the normal exercises and the lifestyle of the people. Before the introduction of the DESMOND, there was no such practice of special treatment except normal care. *The different education programs were not seen much benefitted* before 2004 according to the evidence found. After commencement of DESMOND program the patients were guided from the initial stage and allowed to take decisions their own. According to research on 1109 type 2 diabetes patients, 824 patients among them asked for the intervention of DESMOND to seek better service. The intervention shows the improvement of the mental illness, beliefs of illness. Smoking habits, weights as compared to usual care (Hayward *et al.* 2015).

4. Name the origin of the perspectives from whom the economic analysis was conducted

The paper has been originally seen from the perspective of the healthcare facilities. Therefore, it is essential in the part of the health policies to adopt the NHS facility. The analysis was conducted according to DESMOND facility to deliver the notions of the development after analysing its treatment on two diabetic patients. The national institute of health clinic states that the diabetic education is an essential component that is most vital on the part of the study. The analysis of the study was significantly claimed to fund the programs for researching diabetic development. Therefore, from the origination of the healthcare and the diabetic study analysis, the entire study was conducted to abstract the information (Holman *et al.* 2017).

5. cost and outcomes of the economic evaluation

For analysing the cost features of the diabetic study under DESMOND, certain important factors have been taken into concern. The exercise of the bottom up method has been adopted for the analysis. Hence, the cost that has been delivered in the program has been kept on the verge of the analysis method that helps to interpret the methods of the data. Around 500 samples have been combined to do the probabilistic sensitivity analysis. The various proceeding was conducted on the patients of diabetes. The proceeding of about 12 months was conducted to ascertain the methods of the research. *The economic evaluation is based on the real world cost and the trial based cost.* (Eikawa *et al.* 2015).

6. Cost units and range and their outcomes

The cost of delivering DESMOND program was calculated at an average cost that was analyzed in the procurement of the study (Mann *et al.* 2017). The cost of the research and the additional and the operational cost that is being included in the study are spread over the cost that is essentially over the range of the cost. The main results focus on the increased cost for the type 2 patients. The outcome is also based on the qual.it adjusted life years that has been gained so far after the DESMOND intervention. The results show that the cost after the DESMOND introduction is 209 Euros per person. The QALY gain is 0.0392 per person and the mean cost assessed as 5387 Euros. 82 Euros have increased the lifetime cost in real-world intervention. (Nolan *et al.* 2015).

Refer to the primary outcome measures in the abstract to answer this question, results to be specific

7. State the formulations of the cost and the outcomes

The measurement of the unit cost that was being valued was in pound sterling, and the price was ensured in the average rate that is in the formulation of the study. Hence, these implications are along with the other outcomes that were being considered during the review. The value of the private was majorly accessed were comparative. However, there were not majorly on the part of the NHS, and the care of the individual was also taken into concern for

the measure of the study. The primary outcome was assigned at QALY which was gained over a year (Powers *et al.* 2015).

8. Discount of outcomes or cost.

As the effects so calculated of the interventions by DESMOND for 12 months or one year was not found necessary as the report. The cost was depended on the average of the NHS healthcare expenses. As per the story it was not seen mandatory to discount the outcomes whereas the differences have been marked (Nolan *et al.* 2015).

9. Consideration of incremental and marginal analysis

The additional and marginal study has been undertaken to determine the cost of the DESMOND programs. Along with this the DESMOND targets various risk analysis and the intervention cost per patient were also found less. The intervention cost is within the threshold of 20000 and 30000 per QALY. The estimated value that was found in the report disbursed by the DESMOND after 12 months of the trial is 203 per patient. The DESMOND is cost-effective, and the patients are also finding DESMOND intervention in type 2 diabetes as the significant benefit for them. The intervention cost in real-world price is 2092, and the intervention cost on a trial basis accounted for 5387 in the report. There is 66% of the total intervention has been disbursed by the DESMOND during the cost-effectiveness trial. The DESMOND program is 70% greater than the real practices in the real world (Transcredi, 2015).

10. Conduct of sensitivity analysis

The sensitivity that has been considered in the report is the intervention and its results in the various patients. The outcomes have also been analyzed critically in the story. The sensitivity analysis has undertaken an assumption based on a conservative basis. The effect of the trial has been explained taking proper time. The lesser smoking habits have not had any particular impact on other factors. The per QALY incremental cost by considering the real-world interventions is found lower than the original analysis. The price was found 1618 in

comparison to 2092 with only 0.71 revenue in terms cost-effectiveness. Based on this sensitivity analysis it was found that the interventions have to relate more to the real world to decrease the difference between the actual cost and the marginal cost (Conklin, 2015).

11. Comparison of the results.

Yes, the results have been compared to the other findings. The cost-effectiveness and the intervention programs have been compared with the real world. It was found in the report that the DESMOND programs are more cost-effective in the real world. The DESMOND programs are also compared to the usual care and the general settings. The cost-effectiveness was seen in the current price in comparison to the primary care trust units. The results have been considered per QALY, and the lower difficulties were found in the other health issues due to the decrease in the smoking habits of the people. (Lange *et al.* 2014). Other studies can be included in the comparison because of the diverseness of the interventions. The national institute for health and clinical excellence intervention is also cost-effective and sound in health benefits too in contrast with the ordinary treatment. Two studies of the United States have also been considered for reviewing the clinical effectiveness in diabetes education. The overall conclusion is missing about the cost benefits of the education models.

12. Implications of policy and the usefulness of study.

The study has been undertaken after doing several research works to get to the possible outcomes. The sensitive analysis is along with marginal and incremental analysis. The uncertain analysis has also been taken into consideration to implement the plans and policies. A six-hour group education program has been taken by the healthcare educators (mentioned two). The NHS needs to add better initiatives to take proper care of the patients diagnosed with type 2 diabetes (Tancredi *et al.* 2015).

The study was useful in many manners as it helped to know the need of the cost-effectiveness in much usual cares and the DESMOND programs. The trials and the real-world analysis have helped to discover several programs to minimize the cost related to the treatment. The study can be reviewed to take an important step in organizing type 2 diabetes education programs. The comparison in the study will help in finding the problems in the DESMOND intervention.

Conclusion

On the cost basis, the cost estimated for DESMOND to delivering the services for one year trial of the interventions is 203 per patient. It is concluded that DESMOND should target risk factors in their programs. It was found in the report that the DESMOND programs are more cost-effective in the real world. The DESMOND programs are also compared to the usual care and the general settings. Positive outcomes can be seen for trials and were useful in the productive analysis. The results have been considered per QALY, and the lower difficulties were found in the other health issues due to a decrease in the smoking habits of the people. The cost of the trial of drug use was found 16 in the trials of DESMOND. The increment cost of the trials taken by DESMOND is 219 and the in case of real-world intervention post it was found 92. The level of HBA_{1c} is still not improved regarding the steps taken because the major achievements are after the diagnosis of diabetes.

Reference list

Books

- Bowling, A. (2014). *Research methods in health: investigating health and health services*. McGraw-Hill Education (UK). Retrieved from: <https://www.mheducation.co.uk/openup/chapters/0335206433.pdf>
- Stacks, D. W., & Salwen, M. B. (Eds.). (2014). *An integrated approach to communication theory and research*. Routledge. Retrieved from: https://s3.amazonaws.com/academia.edu.documents/31178620/SE2_summary_Social_Research_Methods_in_Dutch.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1541408863&Signature=BipQAqXSYUmUg2HvNCg%2FRQylN80%3D&response-content-disposition=inline%3B%20filename%3DSocial_research_methods.pdf

Journals

- Conklin, A. I., Monsivais, P., Khaw, K. T., Wareham, N. J., & Forouhi, N. G. (2016). Dietary diversity, diet cost and incidence of type 2 diabetes in the UK: A prospective cohort study. Retrieved from https://www.repository.cam.ac.uk/bitstream/handle/1810/256695/Conklin_et_al-2016-PLOS_Medicine-VoR.pdf?sequence=5
- Eikawa, S., Nishida, M., Mizukami, S., Yamazaki, C., Nakayama, E., & Usono, H. (2015). Immune-mediated antitumor effect by type 2 diabetes drug, metformin. *Proceedings of the National Academy of Sciences*, 112(6), 1809-1814. Retrieved from <http://www.pnas.org/content/pnas/early/2015/01/21/1417636112.full.pdf>
- Green, J. B., Bethel, M. A., Armstrong, P. W., Buse, J. B., Engel, S. S., Garg, J., ... & Lachin, J. M. (2015). Effect of sitagliptin on cardiovascular outcomes in type 2 diabetes. *New England Journal of Medicine*, 373(3), 232-242. Retrieved from <https://arpi.unipi.it/retrieve/handle/11568/802935/116869/nejmoa1501352.pdf>
- Hayward, R. A., Reaven, P. D., Wiitala, W. L., Bahn, G. D., Reda, D. J., Ge, L., ... & Emanuele, N. V. (2015). Follow-up of glycemic control and cardiovascular outcomes in type 2 diabetes. *New England Journal of Medicine*, 372(23), 2197-2206. Retrieved from <https://pdfs.semanticscholar.org/641f/85945b7866e908ac4c67ba433351efbdf3cb.pdf>

- Holman, R. R., Bethel, M. A., Mentz, R. J., Thompson, V. P., Lokhnygina, Y., Buse, J. B., ... & Maggioni, A. P. (2017). Effects of once-weekly exenatide on cardiovascular outcomes in type 2 diabetes. *New England Journal of Medicine*, 377(13), 1228-1239. Retrieved from <https://medicinainternaelsalvador.com/wp-content/uploads/2017/10/Effects-of-Once-Weekly-Exenatide-on-Cardiovascular-Outcomes-in-Type-2-Diabetes.pdf>
- Lange, K., Swift, P., Pańkowska, E., & Danne, T. (2014). Diabetes education in children and adolescents. *Pediatric diabetes*, 15(S20), 77-85. Retrieved from https://s3.amazonaws.com/academia.edu.documents/48916567/Other_complications_and_diabetes-associa20160917-14129-w2t7x.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1541409289&Signature=azC9ZPuz%2F1tkjmow717Cc6SU4OI%3D&response-content-disposition=inline%3B%20filename%3DOther_complications_and_diabetes-associa.pdf#page=82
- Mann, J. F., Ørsted, D. D., Brown-Frandsen, K., Marso, S. P., Poulter, N. R., Rasmussen, S., ... & Buse, J. B. (2017). Liraglutide and renal outcomes in type 2 diabetes. *New England Journal of Medicine*, 377(9), 839-848. Retrieved from <https://medicinainternaelsalvador.com/wp-content/uploads/2017/08/Liraglutide-and-Renal-Outcomes-in-Type-2-Diabetes.pdf>
- Nolan, C. J., Ruderman, N. B., Kahn, S. E., Pedersen, O., & Prentki, M. (2015). Insulin resistance as a physiological defence against metabolic stress: implications for the management of subsets of type 2 diabetes. *Diabetes*, 64(3), 673-686. Retrieved from <http://diabetes.diabetesjournals.org/content/diabetes/64/3/673.full.pdf>
- Powers, M. A., Bardsley, J., Cypress, M., Duker, P., Funnell, M. M., Fischl, A. H., ... & Vivian, E. (2017). Diabetes self-management education and support in type 2 diabetes: a joint position statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. *The Diabetes Educator*, 43(1), 40-53. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/0145721716689694>
- Tancredi, M., Rosengren, A., Svensson, A. M., Kosiborod, M., Pivodic, A., Gudbjörnsdóttir, S., ... & Lind, M. (2015). Excess mortality among persons with type 2 diabetes. *New England Journal of Medicine*, 373(18), 1720-1732. Retrieved from https://mfprac.com/web2018/07/literature/literature/Endocrinology/DM-Mortality_Tancredi.pdf