# Supplementary Table 1: Characteristics of 57 randomly selected HEDM studies from Part 1 that included at least 1 EKE input parameter

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **First author** | **Topic** | **EK estimation (0=nil; 1= informal; 2=formal)** | | | | **Uncertainty distribution about EK parameter (0=none, qualitative only; 1=point estimate; 2=deterministic; 3=probabilistic)** | **Sensitivity analyses about EK parameter (0=none or unidentifiable;1=deterministic; 2=1-way probabilistic; 3 = N-way or PSA)** |
| **Clinical** | **Epidemiol** | **Cost** | **Utility** |
| Annemans L | Pharm | 1 | 0 | 0 | 0 | 1 | 0 |
| Bansback N | Pharm | 1 | 2 | 0 | 0 | 3 | 3 |
| Belani HK | Prev | 0 | 1 | 0 | 0 | 2 | 1 |
| Boonsawat W | Pharm | 0 | 0 | 1 | 0 | 0 | 0 |
| Chanda P | Prev | 1 | 0 | 0 | 0 | 0 | 0 |
| Connolly M | Pharm | 1 | 0 | 0 | 0 | 3 | 3 |
| Davies A | Pharm | 1 | 0 | 0 | 0 | 0 | 0 |
| Delea T E | Pharm | 1 | 1 | 0 | 1 | 1 | 1 |
| Dewilde S | Pharm | 2 | 1 | 0 | 0 | 3 | 3 |
| Diamantopoulos A | Non-phar | 1 | 0 | 0 | 1 | 0 | 0 |
| Franzen C | Test/diag | 0 | 1 | 0 | 0 | 2 | 1 |
| Gandjour A | Prev | 1 | 1 | 0 | 0 | 3 | 2 |
| Genders TS | Test/diag | 1 | 0 | 0 | 0 | 1 | 0 |
| Goodall G | Pharm | 1 | 0 | 1 | 0 | 1 | 1 |
| Greiner RA | Pharm | 1 | 0 | 0 | 0 | 0 | 0 |
| Grover S | Prev | 0 | 1 | 0 | 0 | 1 | 0 |
| Grutters JP | Non-phar | 1 | 1 | 0 | 0 | 3 | 3 |
| Gur I | Non-phar | 1 | 0 | 0 | 0 | 0 | 0 |
| Hagaman JT | Test/diag | 2 | 1 | 0 | 0 | 2 | 1 |
| Havrilesky LJ | Screening | 0 | 1 | 1 | 0 | 3 | 1 |
| Hernandez-Pastor LJ | Pharm | 1 | 0 | 0 | 0 | 2 | 1 |
| Hiligsmann M | Non-phar | 1 | 0 | 0 | 0 | 1 | 0 |
| Javitt JC | Non-phar | 2 | 2 | 2 | 0 | 2 | 1 |
| Jurgensen JS | Prev | 2 | 2 | 0 | 0 | 3 | 3 |
| Kulasingam S L | Screening | 1 | 0 | 0 | 0 | 2 | 1 |
| Lee CP | Non-phar | 0 | 1 | 0 | 0 | 2 | 1 |
| Lindgren P | Non-phar | 1 | 1 | 0 | 1 | 1 | 1 |
| Lindgren P | Pharm | 0 | 1 | 1 | 0 | 3 | 3 |
| Maleewong U | Pharm | 0 | 0 | 0 | 1 | 1 | 0 |
| Mangen MJ | Vaccine | 1 | 1 | 1 | 0 | 3 | 2 |
| Mittendorf T | Pharm | 0 | 0 | 1 | 0 | 0 | 1 |
| Newman J | Pharm | 1 | 0 | 0 | 0 | 0 | 0 |
| Nguyen GC | Test/diag | 1 | 1 | 0 | 0 | 3 | 3 |
| Nherera L | Pharm | 1 | 1 | 1 | 0 | 3 | 2 |
| Olden AM | Non-phar | 1 | 0 | 0 | 0 | 0 | 0 |
| Olsen J | Prev | 1 | 0 | 0 | 0 | 2 | 1 |
| Ortega O | Pharm | 1 | 0 | 0 | 0 | 0 | 0 |
| Paulden M | Screening | 1 | 0 | 0 | 0 | 0 | 1 |
| Ray JA | Non-phar | 0 | 0 | 0 | 1 | 0 | 1 |
| Regenbogen SE | Prev | 0 | 1 | 1 | 0 | 2 | 1 |
| Rozenbaum MH | Vaccine | 0 | 1 | 0 | 0 | 3 | 2 |
| Smith K J | Screening | 1 | 0 | 1 | 1 | 2 | 1 |
| Smith KJ | Test/diag | 0 | 1 | 0 | 0 | 2 | 3 |
| Smits M | Test/diag | 1 | 0 | 0 | 0 | 1 | 0 |
| Tariq L | Screening | 0 | 1 | 0 | 0 | 3 | 3 |
| Taylor DC | Prev | 0 | 1 | 0 | 0 | 3 | 3 |
| Thompson Coon J | Test/diag | 1 | 1 | 0 | 0 | 2 | 3 |
| Tunis SL | Test/diag | 0 | 0 | 0 | 1 | 0 | 0 |
| Usher C | Vaccine | 1 | 0 | 0 | 0 | 3 | 2 |
| Van Eerd MC | Non-phar | 1 | 1 | 1 | 1 | 3 | 3 |
| Verdian L | Pharm | 2 | 0 | 0 | 2 | 0 | 0 |
| Walensky R P | Non-phar | 0 | 1 | 0 | 0 | 3 | 2 |
| Wang | Screening | 1 | 1 | 1 | 0 | 2 | 1 |
| Weatherly H L | Prev | 1 | 0 | 0 | 0 | 0 | 0 |
| Wong CL | Pharm | 1 | 0 | 0 | 0 | 0 | 0 |
| Younis T | Non-phar | 1 | 0 | 0 | 0 | 0 | 0 |
| Zilberberg MD | Pharm | 1 | 0 | 0 | 0 | 0 | 0 |
| **Prevalence of characteristics** | 1 | 61% | 42% | 19% | 14% | 16% | 32% |
| 2 | 9% | 5% | 2% | 2% | 23% | 11% |
| 3 |  |  |  |  | 30% | 21% |
| Any | 70% | 47% | 21% | 16% | 69% | 64% |

Pharm = pharmacological intervention; Non-phar = non-pharmacological intervention; Prev = preventive service; Test/diag = test or diagnostic approach. See text for definition of column headings. All percentage estimates use the 57 studies with at ≥1 EK parameter as the denominator.

Note: Supplementary Table 1 and its reference section (below) list the reports of HEDMs that we obtained in Part 1 of our study, in which we estimated the prevalence of EKE in contemporary HEDMs by randomly selecting from a comprehensive database.

# References for Supplementary Table 1

1. Annemans L, Strens D, Lox E, et al. Cost-effectiveness analysis of aprepitant in the prevention of chemotherapy-induced nausea and vomiting in Belgium. Support Care Cancer. 2008;16:905-15.
2. Bansback N, Ara R, Ward S, et al. Statin therapy in rheumatoid arthritis: a cost-effectiveness and value-of-information analysis. Pharmacoeconomics. 2009;27:25-37.
3. Belani H, Muennig P. Cost-effectiveness of needle and syringe exchange for the prevention of HIV in New York City. Journal of HIV/AIDS and Social Services. 2008;7:229-40.
4. Boonsawat. Cost-effectiveness of budesonide/formoterol maintenance and rescue therapy in Thailand. Asian Biomedicine. 2010;4:571-78.
5. Chanda P, Castillo-Riquelme M, Masiye F. Cost-effectiveness analysis of the available strategies for diagnosing malaria in outpatient clinics in Zambia. Cost Eff Resour Alloc. 2009;7:5.
6. Connolly M, De Vrieze K, Ombelet W, et al. A cost per live birth comparison of HMG and rFSH randomized trials. Reprod Biomed Online. 2008;17:756-63.
7. Davies A, Vardeva K, Loze JY, et al. Cost-effectiveness of atypical antipsychotics for the management of schizophrenia in the UK. Curr Med Res Opin. 2008;24:3275-85.
8. Delea T, Taneja C, Sofrygin O, et al. Cost-effectiveness of letrozole versus tamoxifen as initial adjuvant therapy in postmenopausal women with hormone-receptor positive early breast cancer from a Canadian perspective. Breast Cancer Res Treat. 2010;108:375-87.
9. Dewilde S, Verdian L, Maclaine GD. Cost-effectiveness of ziconotide in intrathecal pain management for severe chronic pain patients in the UK. Curr Med Res Opin. 2009;25:2007-19.
10. Diamantopoulos A, Lees M, Wells PS, et al. Cost-effectiveness of rivaroxaban versus enoxaparin for the prevention of postsurgical venous thromboembolism in Canada. Thromb Haemost. 2010;104:760-70.
11. Franzen C, Bjornstig U, Brulin C, et al. A cost-utility analysis of nursing intervention via telephone follow-up for injured road users. BMC Health Serv Res. 2009;9:98.
12. Gandjour A, Weyler EJ. Cost-effectiveness of preventing hip fractures by hip protectors in elderly institutionalized residents in Germany. Value in health. 2008;11:1088-95.
13. Genders T, Meijboom W, Meijs M, et al. CT coronary angiography in patients suspected of having coronary artery disease: decision making from various perspectives in the face of uncertainty. Radiology. 2009;253:734-44.
14. Goodall G, Jendle JH, Valentine WJ, et al. Biphasic insulin aspart 70/30 vs. insulin glargine in insulin naive type 2 diabetes patients: modelling the long-term health economic implications in a Swedish setting. Int J Clin Pract. 2008;62:869-76.
15. Greiner R, Meier Y, Papadopoulos G, et al. Cost-effectiveness of posaconazole compared with standard azole therapy for prevention of invasive fungal infections in patients at high risk in Switzerland. Oncology. 2010;78:172-80.
16. Grover S, Coupal L, Lowensteyn I. Preventing cardiovascular disease among Canadians: is the treatment of hypertension or dyslipidemia cost-effective? Can J Cardiol. 2008;24:891-98.
17. Grutters JP, Pijls-Johannesma M, Ruysscher DD, et al. The cost-effectiveness of particle therapy in non-small cell lung cancer: exploring decision uncertainty and areas for future research. Cancer Treat Rev. 2010;36:468-76.
18. Gur I, Schneeweiss R. Head lice treatments and school policies in the US in an era of emerging resistance: a cost-effectiveness analysis. Pharmacoeconomics. 2009;27:725-34.
19. Hagaman JT, Kinder BW, Eckman MH. Thiopurine S- methyltransferase [corrected] testing in idiopathic pulmonary fibrosis: a pharmacogenetic cost-effectiveness analysis. Lung. 2010;188:125-32.
20. Havrilesky L, Maxwell G, Chan J, et al. Reducing ovarian cancer mortality through screening: is it possible, and can we afford it? Gynecol Oncol 2008;111:179-87.
21. Hernandez-Pastor LJ, Ortega A, Garcia-Layana A, et al. Cost-effectiveness of ranibizumab compared with pegaptanib in neovascular age-related macular degeneration. Graefes Arch Clin Exp Ophthalmol. 2010;248:467-76.
22. Hiligsmann M, Rabenda V, Gathon HJ, et al. Potential clinical and economic impact of nonadherence with osteoporosis medications. Calcif Tissue Int. 2010;86:202-10.
23. Javitt JC, Zlateva GP, Earnshaw SR, et al. Cost-effectiveness model for neovascular age-related macular degeneration: comparing early and late treatment with pegaptanib sodium based on visual acuity. Value in health. 2008;11:563-74.
24. Jurgensen JS, Arns W, Hass B. Cost-effectiveness of immunosuppressive regimens in renal transplant recipients in Germany: a model approach. Eur J Health Econ. 2010;11:15-25.
25. Kulasingam SL, Benard S, Barnabas RV, et al. Adding a quadrivalent human papillomavirus vaccine to the UK cervical cancer screening programme: A cost-effectiveness analysis. Cost Eff Resour Alloc. 2008;6:4.
26. Lee CP, Zenios SA, Chertow GM. Cost-effectiveness of frequent in-center hemodialysis. J Am Soc Nephrol. 2008;19:1792-7.
27. Lindgren P, Buxton M, Kahan T, et al. Economic evaluation of ASCOT-BPLA: antihypertensive treatment with an amlodipine-based regimen is cost effective compared with an atenolol-based regimen. Heart. 2008;94:e4.
28. Lindgren P, Eriksson J, Buxton M, et al. The economic consequences of non-adherence to lipid-lowering therapy: results from the Anglo-Scandinavian-Cardiac Outcomes Trial. Int J Clin Pract. 2010;64:1228-34.
29. Maleewong U, Kulsomboon V, Teerawattananon Y. The cost-effectiveness analysis of initiating HIV/AIDS treatment with efavirenz-based regimens compared with nevirapine-based regimens in Thailand. J Med Assoc Thai. 2008;91 Suppl 2:S126-38.
30. Mangen M, van Duynhoven Y, Vennema H, et al. Is it cost-effective to introduce rotavirus vaccination in the Dutch national immunization program? Vaccine. 2010;28:2624-35.
31. Mittendorf T, Smith-Palmer J, Timlin L, et al. Evaluation of exenatide vs. insulin glargine in type 2 diabetes: cost-effectiveness analysis in the German setting. Diabetes Obes Metab. 2009;11:1068-79.
32. Newman J, Grobman WA, Greenland P. Combination polypharmacy for cardiovascular disease prevention in men: a decision analysis and cost-effectiveness model. Prev Cardiol. 2008;11:36-41.
33. Nguyen GC, Frick KD, Dassopoulos T. Medical decision analysis for the management of unifocal, flat, low-grade dysplasia in ulcerative colitis. Gastrointest Endosc. 2009;69:1299-310.
34. Nherera L, Calvert N, Demott K, et al. Cost-effectiveness analysis of the use of a high-intensity statin compared to a low-intensity statin in the management of patients with familial hypercholesterolaemia. Curr Med Res Opin 2010;26:529-36.
35. Olden AM, Holloway R. Treatment of malignant pleural effusion: PleuRx catheter or talc pleurodesis? A cost-effectiveness analysis. J Palliat Med. 2010;13:59-65.
36. Olsen J, Jepsen MR. Human papillomavirus transmission and cost-effectiveness of introducing quadrivalent HPV vaccination in Denmark. Int J Technol Assess Health Care. 2010;26:183-91.
37. Ortega O, El-Sayed N, Sanders JW, et al. Cost-benefit analysis of a rotavirus immunization program in the Arab Republic of Egypt. J Infect Dis. 2009;200 Suppl 1:S92-8.
38. Paulden M, Palmer S, Hewitt C, et al. Screening for postnatal depression in primary care: cost effectiveness analysis. BMJ. 2009;339:b5203.
39. Ray JA, Borker R, Barber B, et al. Cost-effectiveness of early versus late cinacalcet treatment in addition to standard care for secondary renal hyperparathyroidism in the USA. Value in health. 2008;11:800-8.
40. Regenbogen SE, Greenberg CC, Resch SC, et al. Prevention of retained surgical sponges: a decision-analytic model predicting relative cost-effectiveness. Surgery. 2009;145:527-35.
41. Rozenbaum M, Sanders E, van Hoek A, et al. Cost effectiveness of pneumococcal vaccination among Dutch infants: an economic analysis of the seven valent pneumococcal conjugated vaccine and forecast for the 10 valent and 13 valent vaccines

BMJ. 2010:340:c2509.

1. Smith KJ, Zimmerman RK, Nowalk MP, et al. Age, revaccination, and tolerance effects on pneumococcal vaccination strategies in the elderly: a cost-effectiveness analysis. Vaccine. 2009;27:3159-64.
2. Smith KJ, Monsef BS, Ragni MV. Should female relatives of factor V Leiden carriers be screened prior to oral contraceptive use? A cost-effectiveness analysis. Thromb Haemost. 2008;100:447-52.
3. Smits M, Dippel DW, Nederkoorn PJ, et al. Minor head injury: CT-based strategies for management--a cost-effectiveness analysis. Radiology. 2010;254:532-40.
4. Tariq L, van den Berg M, Hoogenveen RT, et al. Cost-effectiveness of an opportunistic screening programme and brief intervention for excessive alcohol use in primary care. PLoS ONE. 2009;4:e5696.
5. Taylor DC, Pandya A, Thompson D, et al. Cost-effectiveness of intensive atorvastatin therapy in secondary cardiovascular prevention in the United Kingdom, Spain, and Germany, based on the Treating to New Targets study. Eur J Health Econ. 2009;10:255-65.
6. Thompson Coon J, Rogers G, Hewson P, et al. Surveillance of cirrhosis for hepatocellular carcinoma: a cost-utility analysis. Br J Cancer. 2008;98:1166-75.
7. Tunis SL, Minshall ME, St Charles M, et al. Pioglitazone versus rosiglitazone treatment in patients with type 2 diabetes and dyslipidemia: cost-effectiveness in the US. Curr Med Res Opin. 2008;24:3085-96.
8. Usher C, Tilson L, Olsen J, et al. Cost-effectiveness of human papillomavirus vaccine in reducing the risk of cervical cancer in Ireland due to HPV types 16 and 18 using a transmission dynamic model. Vaccine. 2009;26:5654-61.
9. van Eerd MC, Mario Ouwens JN, de Peuter MA. Cost-effectiveness study comparing pharmaceutically licensed plasma for transfusion (OctaplasLG(R)) versus fresh frozen plasma (FFP) in critically Ill patients in the UK. Transfus Apher Sci. 2010;43:251-9.
10. Verdian L, Yi Y. Cost-utility analysis of rufinamide versus topiramate and lamotrigine for the treatment of children with Lennox-Gastaut Syndrome in the United Kingdom. Seizure. 2010;19:1-11.
11. Walensky RP, Wolf LL, Wood R, et al. When to start antiretroviral therapy in resource-limited settings. Ann Intern Med. 2009;151:157-66.
12. Wang S, Merlin T, Kreisz F, et al. Cost and cost-effectiveness of digital mammography compared with film-screen mammography in Australia. Aust N Z J Public Health. 2009;33:430-6.
13. Weatherly HL, Griffin SC, Mc Daid C, et al. An economic analysis of continuous positive airway pressure for the treatment of obstructive sleep apnea-hypopnea syndrome. Int J Technol Assess Health Care. 2009;25:26-34.
14. Wong CL, Bansback N, Lee PE, et al. Cost-effectiveness: cholinesterase inhibitors and memantine in vascular dementia. Can J Neurol Sci. 2009;36:735-9.
15. Younis T, Rayson D, Sellon M, et al. Adjuvant chemotherapy for breast cancer: a cost-utility analysis of FEC-D vs. FEC 100. Breast Cancer Res Treat. 2008;111:261-7.
16. Zilberberg M, Kothari S, Shorr A. Cost-effectiveness of micafungin as an alternative to fluconazole empiric treatment of suspected ICU-acquired candidemia among patients with sepsis: a model simulation. Crit Care. 2009;13:R94.