

# Medical Nihilism

Jacob Stegenga

**OXFORD**  
UNIVERSITY PRESS

# Contents

<i>Acknowledgments</i>	xi
<i>Parlance</i>	xiii

1. Introduction	1
1.1 Medical Nihilism	1
1.2 Our Present Confidence	8
1.3 Brief History of Medical Nihilism	9
1.4 Evidence-Based Medicine	13
1.5 The Key Arguments	14
1.6 The Master Argument	18
1.7 After Nihilism	19

## Part I. Concepts

2. Effectiveness of Medical Interventions	23
2.1 Effectiveness and Disease	23
2.2 Naturalism	25
2.3 Normativism	29
2.4 Hybridism	34
2.5 Eliminativism	37
2.6 Conclusion	39
3. Effectiveness and Medicalization	40
3.1 Introduction	40
3.2 Levels of Effectiveness	41
3.3 Scope Requirements for Effectiveness	44
3.4 An Ill for Every Pill	46
3.5 Overdiagnosis and Overtreatment	49
3.6 Targeting the Normative	51
3.7 Objections	52
4. Magic Bullets	54
4.1 Introduction	54
4.2 Magic Bullets	55
4.3 Medicine without Magic	61
4.4 Non-Specificity	63
4.5 Complexity	65
4.6 Conclusion	67

**Part II. Methods**

5. Down with the Hierarchies	71
5.1 Evidence Hierarchies	71
5.2 Evidence Users Employ Evidence Tokens	74
5.3 Different Hypothesis Types, Different Hierarchies	75
5.4 Assessing and Amalgamating Evidence	76
5.5 Trouble at the Top	77
5.6 Abandoning Hierarchies	79
5.7 Discussion	82
6. Malleability of Meta-Analysis	84
6.1 Meta-Analysis	84
6.2 Constraint and Objectivity	85
6.3 Failure of Constraint	87
6.4 Meta-Analysis is Malleable	88
6.5 The Hill Strategy	95
6.6 Conclusion	97
7. Assessing Medical Evidence	99
7.1 Quality Assessment Tools	99
7.2 Inter-Rater Reliability	102
7.3 Inter-Tool Reliability	104
7.4 Underdetermination of Evidential Significance	107
7.5 Conclusion	111
8. Measuring Effectiveness	112
8.1 Introduction	112
8.2 Instruments	114
8.3 Measures	119
8.4 Extrapolation	125
8.5 Measurement in Regulation	130
8.6 Conclusion	133
9. Hollow Hunt for Harms	134
9.1 Introduction	134
9.2 Operationalizing Harm	135
9.3 First-in-Human, Never Seen Again	137
9.4 Clinical Trials and the Abuse of Power	141
9.5 Jump Now, Look Later (but Don't Look Hard)	145
9.6 Secrecy of Data	146
9.7 Conclusion	149

**Part III. Evidence and Values**

10. Bias and Fraud	153
10.1 Introduction	153
10.2 Varieties of Bias	154

10.3	Publication Bias	159
10.4	Fraud	160
10.5	Conflicts of Interest	161
10.6	Formalizing Bias	163
10.7	Discussion	164
11.	Medical Nihilism	167
11.1	Introduction	167
11.2	Rejected Medical Interventions	168
11.3	Medicine's Darkest Secret	171
11.4	Master Argument	175
11.5	Objections	178
11.6	Conclusion	183
12.	Conclusion	185
12.1	Gentle Medicine	185
12.2	Tweaking Methodological Details	187
12.3	Rethinking Research Priorities	188
12.4	Regulation and Inductive Risk	191
12.5	Revolutionizing Medical Research	195
12.6	The Art of Medicine and the Love of Humanity	197
<i>Appendix 1. Bayes' Theorem and Screening</i>		199
<i>Appendix 2. Measurement Scales</i>		201
<i>Appendix 3. Epistemic Proof of Superiority of RD over RR</i>		202
<i>Appendix 4. Decision-Theoretic Proof of Superiority of RD over RR</i>		203
<i>Appendix 5. Modeling the Measurement of Effectiveness</i>		206
<i>References</i>		209
<i>General Index</i>		225
<i>Index of Drugs</i>		227