eTable 1. Supplemental Data for Figure 1: Change in UPDRS Motor Score

T (mo)	Study (Class)	RMD	LCL	UCL	T (mo)	Study (Class)	RMD	LCL	UCL	T (mo)	Study (Class)	RMD	LCL	UCL	T (mo)	Study (Class)	RMD	LCL	UCL
6	Watts 2010 (II)	0.2	-2	2.7	24	Parkinson SG 2000 (I)	-3.9	-6	-2.1	48	Parkinson SG 2004 (II)	-4.9	-8	-1.9	72	Parkinson SG 2009 (IV)	-2.7	-5.9	0.6
12	Oertel 2006 (III)	-1.9	-3	-0.4	24	Whone 2003 (I)	-6.3	-9	-3.5	60	Bracco 2004 (II)	-2.9	-5	-0.7	120	Hauser 2007 (IV)	-3.2	-12.1	5.6
12	Olanow 1995 (II)	-3.2	-8	1.1	36	Oertel 2006 (III)	-5.6	-8	-3.6	60	Rascol 2000 (II)	-4.5	-8	-1.3					

eTable 2. Supplemental Data for Figure 2: Risk Difference for Dyskinesia

T (yrs)	Study (Class)	RD	LCL	UCL	T (yrs)	Study (Class)	RD	LCL	UCL	T (yrs)	Study (Class)	RD	LCL	UCL	T (yrs)	Study (Class)	RD	LCL	UCL
2	Parkinson SG 2000(I)	21%	12%	29%	3	Caraceni 2001 (IV)	12%	3%	21%	5	Rascol 2000 (II)	25%	13%	37%	10	Hauser 2007 (IV)	25%	2%	44%
2	Whone 2003(I)	23%	13%	34%	3	PD Res. Grp. UK 1993 (IV)	25%	19%	31%	5	Allain 2000(IV)	15%	-5%	33%	10	Lees 2001 (IV)	9%	1%	18%
2	Hely 1989 (II)	19%	3%	35%	4	Gimenez-Roldan 1997 (II)	27%	1%	51%	5	Hely 1994 (IV)	27%	10%	42%	14	Katzenschlager 2008 (IV)	2%	-17%	20%
2	Watts 2010 (II)	14%	7%	23%	4	Parkinson SG 2004 (II)	30%	19%	68%	5	Montastruc 1994 (IV)	36%	12%	55%					
3	Rinne 1998 (II)	8%	2%	14%	4	Weiner 1993 (III)	39%	-10%	68%	6	Parkinson SG 2009 (IV)	17%	5%	28%					
3	Oertel 2006 (III)	17%	9%	26%	5	Bracco 2004 (II)	12%	6%	18%	7	PD Med Collab. Grp. 2014 (IV)	7%	2%	12%					

Figure 2. Chart shows random effects meta-analysis for each time (red text = # articles, class). Table shows risk difference (LD-DA) for each study and time. The **induction of dyskinesia, with levodopa as compared to dopamine agonists**, is **probably more likely at 2 years**, RD = 18.7% (95% CI 13.7%–23.8%), moderate confidence; **possibly more likely at 3 years** 12.5% (2.8%–22.1%), low confidence; **probably more likely at 4 years** 29.2% (19.6%–38.8%), moderate confidence; **possibly more likely at 5 years** 17.5% (4.5%–30.5%), low confidence. There is insufficient evidence to determine whether levodopa is more or less likely than dopamine agonists to induce dyskinesia at 6 years 16.5% (4.6% to 27.7%), 7 years 7.1% (2.4%–11.8%), ten years 14.3% (-0.4% to 29.1%), and fourteen years 1.6% (-17.3% to 20%), all with very low confidence. The confidence in the evidence is algorithmically determined, as outlined in the *Clinical Practice Guideline Process Manual*.[2]

eTable 3. Supplemental Data for Figure 3: Risk Differences for Development of Hallucinations

T (yrs)	Study (Class)	RD	LCL	UCL	T (yrs)	Study (Class)	RD	LCL	UCL	T (yrs)	Study (Class)	RD	LCL	UCL
2	Parkinson SG 2000(I)	-6%	-12%	0%	4	Parkinson SG 2004(II)	-7%	-14%	1%	5	Rascol 2000(II)	-12%	-19%	-3%
2	Whone 2003(I)	-6%	-13%	1%	4	Przuntek 1996(IV)	1%	-3%	5%	5	Montastruc 1994(IV)	-13%	-33%	6%
3	Oertel 2006(III)	-3%	-8%	0%	5	Bracco 2004(II)	0%	-5%	4%					

Figure 3. Chart shows random effects meta-analysis for each time (red text = # articles, class). Table shows risk difference (LD-DA) for each study and time. **Hallucinations with dopamine agonists as compared to levodopa**, are **possibly more likely at 2 years** RD = -5.7% (95% CI -10.3% to -1.2%), low confidence; **possibly no more likely at 4 years** 6.6% (-13.9% to 0.7%), low confidence; and **possibly no more likely at 5 years** -5.6% (-16.6% to 5.5%), low confidence. There is insufficient evidence to determine whether dopamine agonists are more or less likely than levodopa to induce hallucinations at 3 years -3.4% (-7.7% to -0.2%), very low confidence. The confidence in the evidence is algorithmically determined, as outlined in the *Clinical Practice Guideline Process Manual*.[2]

eTable 4. Supplemental Data for Figure 4: Risk Difference for Discontinuation Due to AE

T (yrs)	Study (Class)	RD	LCL	UCL	T (yrs)	Study (Class)	RD	LCL	UCL	T (yrs)	Study (Class)	RD	LCL	UCL	T (yrs)	Study (Class)	RD	LCL	UCL
1	Bakheit 1990 (II)	-19%	-43%	5%	2	Watts 2010 (II)	-6%	-15%	3%	3	Caraceni 2001 (IV)	-26%	-33%	-18%	5	Bracco 2004 (II)	-6%	-13%	1%
2	Parkinson SG 2000 (I)	-5%	-11%	2%	3	Rinne 1998 (II)	-3%	-10%	4%	3	PD Res. Grp UK 1993 (IV)	-37%	-44%	-28%	5	Rascol 2000 (II)	6%	-6%	18%
2	Whone 2003 (I)	-10%	-19%	0%	3	Oertel 2006 (III)	-7%	-15%	1%	4	Przuntek 1996 (IV)	-9%	-14%	-4%	5	Utsumi 2012 (IV)	-18%	-32%	-5%
															7	PD Med Collab. Grp 2014 (IV)	-26%	-30%	-23%

Figure 4. Chart shows random effects meta-analysis for each time (red text = # articles, class). Table shows risk difference (LD-DA) for each study and time. The **discontinuation of medication due to adverse effects, with dopamine agonists as compared to levodopa**, is **possibly more likely at two years** RD = -6.1% (95% CI-10.7% to -1.4%), low confidence; **possibly no more likely at three years** -4.3% (-9.6% to 0.9%), low confidence; **probably no more likely at five years** -1% (-12.3% to 10.4%), moderate confidence. There is insufficient evidence to determine whether dopamine agonists are more or less likely than levodopa to cause medication discontinuation due to adverse effects at one year -18.8% (-43% to 5%), four years -9.1% (-14% to -4.4%), and ten years -26.2% (-30% to -22.5%), all with very low confidence. The confidence in the evidence is algorithmically determined, as outlined in the *Clinical Practice Guideline Process Manual*.[2]