

Appendix

1. Description of sample medications

1.1 eTable 1. Description of targeted anticancer medication in the intervention group

Num	Generic Name	WHO-ATC Code	Approval Time	Indication	Target	DDD (mg)	Negotiated price per DDD (2017 US \$)
1	Rituximab	L01XC02	Apr-2000	Lymphoma	MS4A1	115.91	415.1
2	Trastuzumab	L01XC03	Sep-2002	Breast cancer; Stomach cancer	ERBB2	20	51.2
3	Bortezomib	L01XX32	Feb-2005	Multiple myeloma; Lymphoma	PSMB1; PSMB2; PSMB5; PSMD1; PSMD2	0.42	219.2
4	Recombinant Human Endostatin	/	Sep-2005	Lung cancer	Multi-target Antiangiogenesis	8.5	52.9
5	Erlotinib	L01XE03	Apr-2006	Lung cancer	EGFR	150	31.8
6	Sorafenib	L01XE05	Sep-2006	Liver cancer; Kidney cancer; Thyroid cancer	BRAF; FGFR1; FLT1; FLT3; FLT4; KDR; KIT; PDGFRB; RAF1; RET	800	120.3
7	Nimotuzumab	/	Apr-2008	Nasopharynx cancer	EGFR	14.29	71.9
8	Bevacizumab	L01XC07	Feb-2010	Colorectal cancer; Lung cancer	VEGFA	25	74.0
9	Fulvestrant	L02BA03	Jun-2010	Breast cancer	ESR1	8.3	11.8
10	Lapatinib	L01XE07	Jan-2013	Breast cancer	EGFR; ERBB2	1250	51.8
11	Everolimus	L01XE10 L04AX04	Jan-2013	Brain cancer; Kidney cancer; Pancreatic cancer	MTOR	10 1.5	51.6
12	Lenalidomide	L04AX04	Jan-2013	Multiple myeloma	CRBN	10	128.3
13	Apatinib	/	Oct-2014	Stomach cancer	VEGFR-2	850	68.5
14	Chidamide	/	Dec-2014	Lymphoma	HDAC	8.57	97.8
15	Abiraterone	L02BX03	May-2015	Prostate cancer	CYP17A1	1000	85.9

Notes: WHO-ATC, World Health Organization Anatomical Therapeutic Chemical classification; Approval time, the approval month and year of approval for the first indication by the National Medical Product Administration (NMPA); Indication, indication(s) as approved by NMPA; DDD, defined daily dose in mg; Negotiated price per DDD is converted to 2017 US dollars using average annual exchange rates; MS4A, membrane-spanning 4-domains, subfamily A; ERBB2, erb-b2 receptor tyrosine kinase 2; PSMB, proteasome subunit beta; PSMD, proteasome modulator; EGFR, epidermal growth factor receptor; BRAF, v-raf murine sarcoma viral oncogene homolog B; FGFR, fibroblast

growth factor receptor; FLT, fms-like tyrosine; KDR, kinase insert domain receptor; KIT, KIT Proto-Oncogene, Receptor Tyrosine Kinase; PDGFRB, platelet-derived growth factor receptor beta; RAF, rapidly accelerated fibrosarcoma; RET, rearranged during transfection; VEGFA, vascular endothelial growth factor A; ESR, Estrogen Receptor; MTOR, mammalian/mechanistic targets of rapamycin; CRBN, Cereblon ; HDAC, histone deacetylase; CYP17A1, Cytochrome P450 Family 17 Subfamily A Member 1.

1.2 eTable 2. Description of targeted anticancer medication in the comparison group

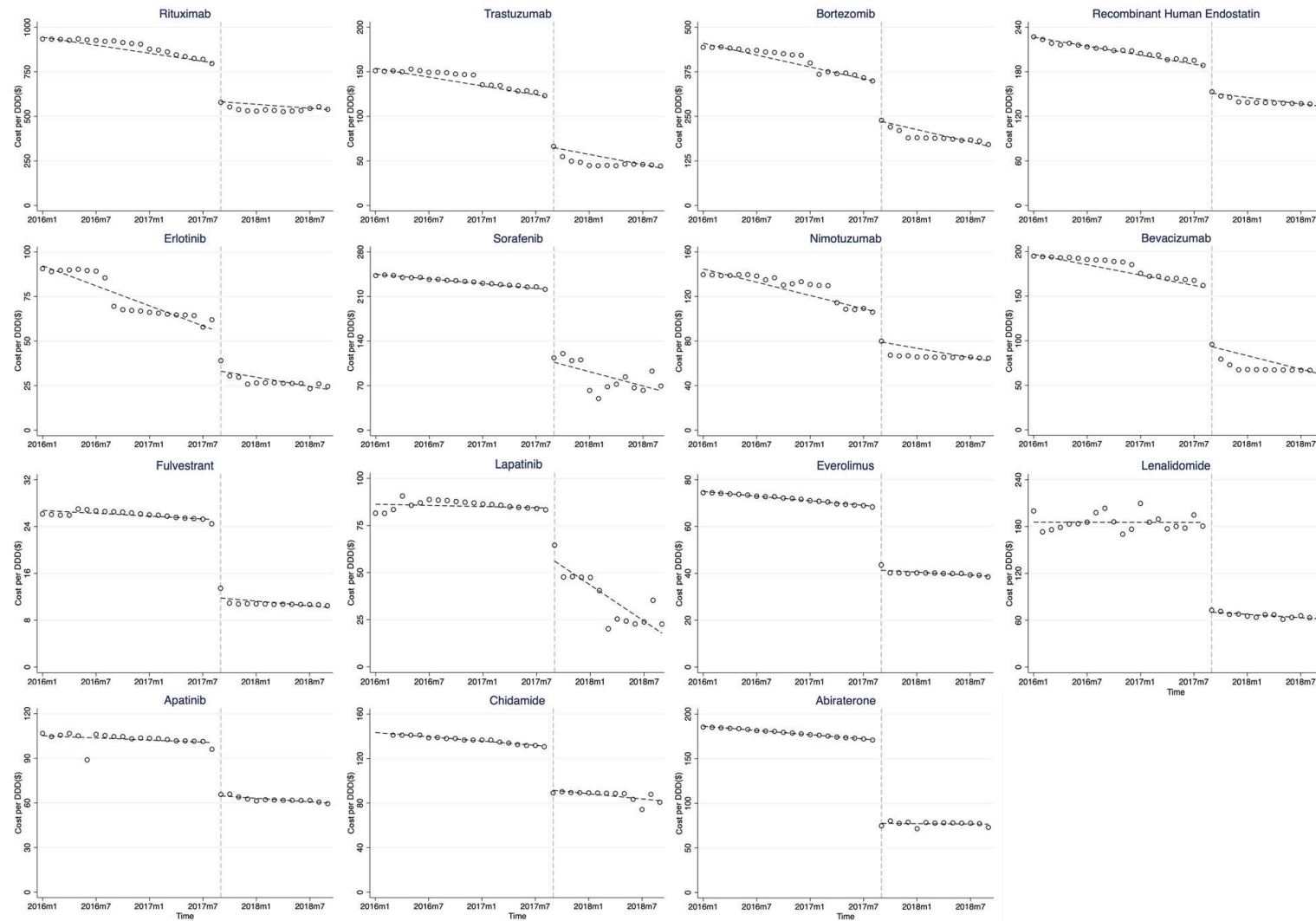
Num	Generic Name	WHO-ATC Code	Approval Time	Indication	Target gene	DDD (mg)
1	Cetuximab	L01XC06	Jul-2006	Colorectal cancer	EGFR	60.71
2	Sunitinib	L01XE04	Oct-2007	Kidney cancer; Stomach cancer; Pancreatic cancer	FLT1; FLT3; FLT4; KDR; KIT; PDGFRA; PDGFRB	37.5
3	Pegaspargase	L01XX24	Jan-2009	Leukemia	Biological	303.57 (IU)
4	Nilotinib	L01XE08	Jul-2009	Leukemia	BCR-ABL	800
5	Crizotinib	L01XE16	Jan-2013	Lung cancer	ALK; MET	500
6	Axitinib	L01XE17	Apr-2015	Kidney cancer	FLT1; FLT4; KDR	10

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2. Costs/DDD, procurement volumes, and spending - individual price-negotiated medications

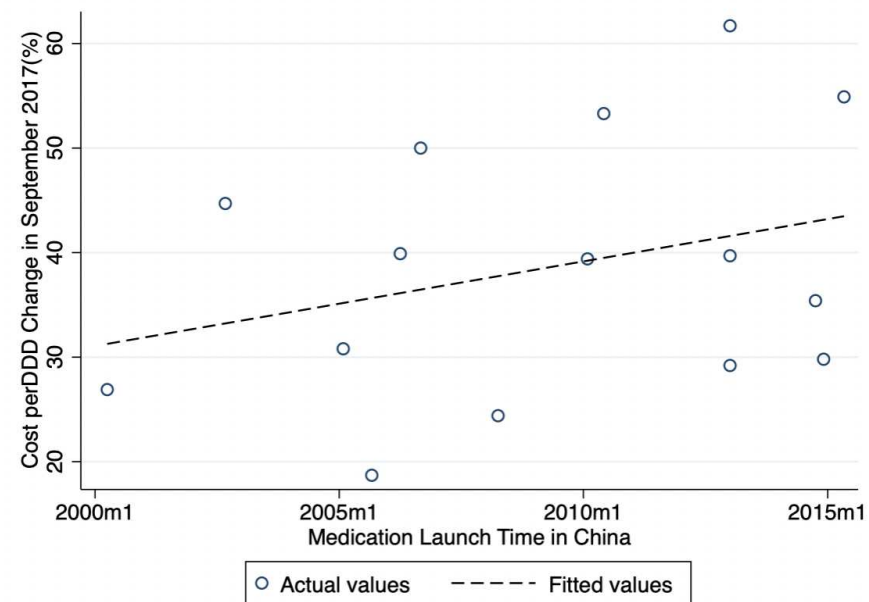
2.1.1 Cost per DDD (US \$/DDD)

eFigure 1 | Observed and predicted cost per DDD of individual 2017 price-negotiated medications. DDD, defined daily dose; intervention time=September 2017



2.1.2 Relationship between Cost per DDD change and medication launch time

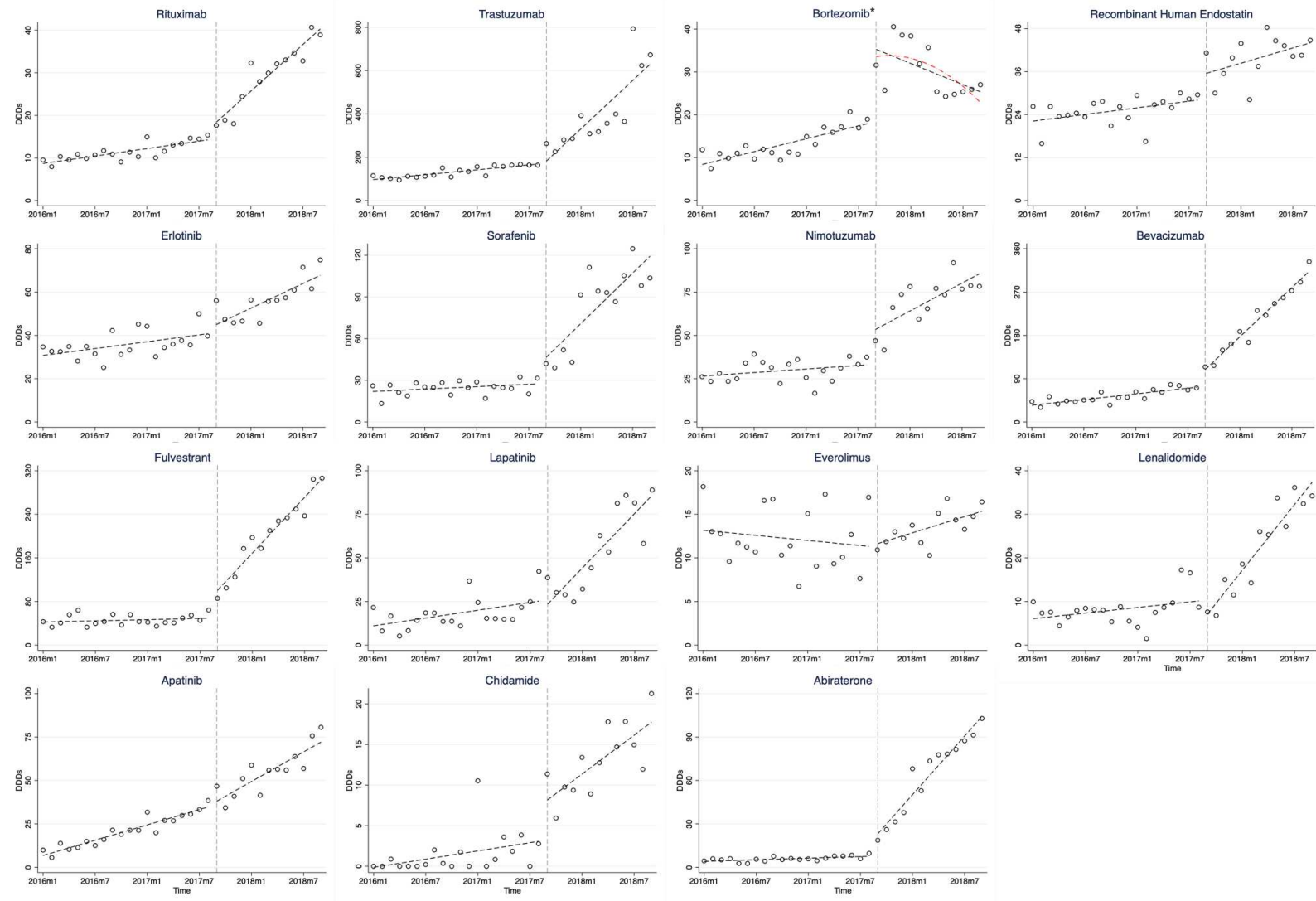
eFigure 2 | Correlation between individual medication cost perDDD change in September 2017 and medication launch time in China



Note: DDD, defined daily dose; Pearson correlation coefficient= 0.3092, P=0.262

2.2 Procurement volume (DDDs)

eFigure 3 | Observed and predicted DDDs of individual 2017 price-negotiated medications. DDDs, defined daily doses; intervention time=September 2017; * the postintervention trend of bortezomib was estimated through both line model and non-linear model (by quadratic term).



2.3 Spending

eFigure 4 | Observed and predicted spending on individual 2017 price-negotiated medications. Intervention time=September 2017

