

**Cancer drug costs for a month of treatment at initial Food and Drug
Administration approval**

Generic name	Brand name	Year of FDA approval	Monthly cost (actual \$)	Monthly cost (2014\$)
vinblastine	Velban	1965	\$78	\$586
thioguanine, 6-TG	Thioguanine Tabloid	1966	\$17	\$124
hydroxyurea	Hydrea	1967	\$14	\$99
procarbazine	Matulane	1969	\$2	\$13
cytarabine	Cytosar-U, Tarabine PFS	1969	\$13	\$84
testolactone	Teslac	1969	\$179	\$1,158
plicamycin	Mithracin	1970	\$50	\$305
mitotane	Lysodren	1970	\$134	\$816
mitomycin C	Mutamycin	1974	\$5	\$23
dacarbazine	DTIC-Dome	1975	\$29	\$128
lomustine	CeeNU	1976	\$10	\$42
carmustine	BICNU, BCNU	1977	\$33	\$129
tamoxifen citrate	Nolvadex	1977	\$44	\$170
cisplatin	Platinol	1978	\$125	\$454
estramustine	Emcyt	1981	\$420	\$1,094
streptozocin	Zanosar	1982	\$61	\$150
etoposide, VP-16	Vepesid	1983	\$181	\$430
interferon alfa 2a	Roferon A	1986	\$742	\$1,603
mitoxantrone	Novantrone	1987	\$477	\$994
doxorubicin	Adriamycin	1987	\$521	\$1,086
daunorubicin, daunomycin	Cerubidine	1987	\$533	\$1,111
ifosfamide	IFEX	1988	\$1,667	\$3,336
flutamide	Eulexin	1989	\$213	\$406
levamisole	Ergamisol	1990	\$105	\$191
idarubicin	Idamycin	1990	\$227	\$411
altretamine	Hexalen	1990	\$341	\$618
pamidronate	Aredia	1991	\$507	\$881
fludarabine phosphate	Fludara	1991	\$662	\$1,151
carboplatin	Paraplatin	1991	\$860	\$1,495
pentostatin	Nipent	1991	\$1,767	\$3,071
melphalan	Alkeran	1992	\$35	\$59
aldesleukin	Proleukin	1992	\$13,503	\$22,784
cladribine	Leustatin, 2-CdA	1993	\$764	\$1,252
asparaginase	Elspar	1994	\$694	\$1,109
vinorelbine	Navelbine	1994	\$1,035	\$1,653
paclitaxel	Taxol	1994	\$2,614	\$4,176
pegaspargase	Oncaspar	1994	\$3,006	\$4,802
anastrozole	Arimidex	1995	\$189	\$294
bicalutamide	Casodex	1995	\$311	\$483
goserelin acetate	Zoladex	1995	\$415	\$645

porfimer sodium	Photofrin	1995	\$520	\$808
doxorubicin liposomal	Doxil, Dox-SL, Evacet, LipoDox	1995	\$1,488	\$2,311
tretinoin, ATRA	Vesanoid	1995	\$2,435	\$3,782
nilutamide	Nilandron	1996	\$320	\$483
bleomycin	Blenoxane	1996	\$421	\$635
etoposide phosphate	Etopophos	1996	\$685	\$1,034
daunorubicin liposomal	DanuoXome	1996	\$847	\$1,278
gemcitabine	Gemzar	1996	\$2,129	\$3,212
topotecan	Hycamtin	1996	\$2,344	\$3,537
docetaxel	Taxotere	1996	\$2,610	\$3,938
irinotecan	Camptosar	1996	\$5,326	\$8,036
toremifene	Fareston	1997	\$93	\$138
letrozole	Femara	1997	\$180	\$265
rituximab	Rituxan	1997	\$3,475	\$5,126
BCG Live	TICE BCG	1998	\$53	\$77
leuprolide acetate	Eligard, Lupron, Lupron Depot	1998	\$206	\$299
capecitabine	Xeloda	1998	\$1,045	\$1,518
trastuzumab	Herceptin	1998	\$3,208	\$4,659
valrubicin	Valstar	1998	\$3,209	\$4,661
methoxsalen	Uvadex	1999	\$80	\$113
exemestane	Aromasin	1999	\$205	\$292
busulfan	Busulfex (Myleran)	1999	\$1,427	\$2,028
temozolomide	Temodar	1999	\$1,574	\$2,237
epirubicin	Ellence	1999	\$2,295	\$3,261
bexarotene	Targretin	1999	\$2,361	\$3,356
cytarabine liposomal	DepoCyt, DepoFoam	1999	\$3,351	\$4,762
denileukin	Ontak	1999	\$14,291	\$20,307
triptorelin pamoate	Trelstar Depot	2000	\$450	\$618
gemtuzumab ozogamicin	Mylotarg	2000	\$4,262	\$5,859
arsenic trioxide	Trisenox	2000	\$5,400	\$7,424
imatinib mesylate	Gleevec	2001	\$3,401	\$4,546
alemtuzumab	Campath	2001	\$19,925	\$26,634
zoledronic acid	Zometa	2002	\$881	\$1,159
fulvestrant	Faslodex	2002	\$948	\$1,248
ibrutinomab tiuxetan	Zevalin	2002	\$1,000	\$1,315
oxaliplatin	Eloxatin	2002	\$5,911	\$7,778
tositumomab	Bexxar	2003	\$1,449	\$1,864
gefitinib	Iressa	2003	\$1,608	\$2,069
abarelix	Plenaxis depot	2003	\$2,607	\$3,354
bortezomib	Velcade	2003	\$3,392	\$4,364
azacitidine	Vidaza, Mylosar	2004	\$3,909	\$4,899
erlotinib	Tarceva	2004	\$4,174	\$5,231
bevacizumab	Avastin	2004	\$4,429	\$5,551
pemetrexed disodium	Alimta	2004	\$5,086	\$6,374

cetuximab	Erbitux	2004	\$9,465	\$11,862
sorafenib	Nexavar	2005	\$5,097	\$6,178
paclitaxel albumin-stabilized nanoparticle formulation	Abraxane, Nanoparticle Paclitaxel	2005	\$5,640	\$6,837
lenalidomide	Revlimid	2005	\$7,989	\$9,684
nelarabine	Arranon	2005	\$19,425	\$23,546
dasatinib	Sprycel	2006	\$4,529	\$5,318
sunitinib maleate	Sutent	2006	\$4,590	\$5,390
decitabine	Dacogen	2006	\$4,652	\$5,463
thalidomide	Thalomid, Synovir	2006	\$5,613	\$6,591
panitumumab	Vectibix	2006	\$7,991	\$9,384
vorinostat	Zolanza	2006	\$8,134	\$9,552
lapatinib ditosylate	Tykerb	2007	\$3,124	\$3,567
temsirolimus	Torisel	2007	\$5,497	\$6,276
nilotinib	Tasigna	2007	\$6,140	\$7,010
ixabepilone	Ixempra	2007	\$6,781	\$7,742
degarelix	Firmagon	2008	\$595	\$654
bendamustine HCL	Treanda	2008	\$7,026	\$7,725
pazopanib	Votrient	2009	\$6,013	\$6,635
everolimus	Afinitor	2009	\$7,885	\$8,701
romidepsin	Istodax	2009	\$16,958	\$18,713
ofatumumab	Arzerra	2009	\$18,315	\$19,884
pralatrexate injection	Folotyng	2009	\$19,732	\$21,773
eribulin mesylate	Halaven	2010	\$6,193	\$6,724
cabazitaxel	Jevtana Injection	2010	\$10,842	\$11,771
sipuleucel-T	Provenge	2010	\$35,588	\$38,637
abiraterone acetate	Zytiga	2011	\$5,259	\$5,535
ruxolitinib phosphate	Jakafi	2014	\$8,865	\$8,878
vandetanib	Caprelsa	2011	\$10,413	\$10,959
vemurafenib tablets	Zelboraf	2011	\$10,767	\$11,332
crizotinib	Xalkori	2011	\$11,011	\$11,589
brentuximab vedotin	Adcetris	2011	\$19,495	\$20,517
asparaginase Erwinia chrysanthemi	Erwinaze	2013	\$24,622	\$25,021
ipilimumab	Yervoy	2011	\$37,956	\$39,947
omacetaxine mepesuccinate	Synribo	2012	\$6,357	\$6,555
enzalutamide	Xtandi	2012	\$7,078	\$7,298
pertuzumab	Perjeta	2013	\$7,758	\$7,883
carfilzomib	Kyprolis	2013	\$7,959	\$8,089
bosutinib	Bosulif	2012	\$8,287	\$8,545
vismodegib	Erivedge	2012	\$8,546	\$8,812
ponatinib	Iclusig	2012	\$9,104	\$9,387
axitinib	Inlyta	2012	\$9,291	\$9,580
regorafenib	Stivarga	2012	\$9,620	\$9,919

cabozantinib	Cometriq	2012	\$9,921	\$10,229
ziv-aflibercept	Zaltrap	2012	\$11,063	\$11,407
obinutuzumab	Gazyva	2013	\$5,878	\$5,973
afatanib	Gilotrif	2013	\$6,071	\$6,170
trametinib	Mekinist	2013	\$8,812	\$8,955
dabrafenib	Tafinlar	2013	\$9,411	\$9,564
ado-trastuzumab emtansine	Kadcyla	2013	\$10,635	\$10,807
ibrutinib	Imbruvica	2013	\$10,900	\$11,077
pomalidomide	Pomalyst	2013	\$11,336	\$11,520
Ra 223	Xofigo	2013	\$12,455	\$12,657
pembrolizumab	Keytruda	2014	\$9,240	\$9,240
nivolumab	Opdivo	2014	\$12,435	\$12,435
ramucirumab	Cyramza	2014	\$13,093	\$13,093
ceritinib	Zykadia	2014	\$13,672	\$13,672
blinatumomab	Blincyto	2014	\$64,260	\$64,260
Idelalisib	Zydelig	2014	\$8,015	\$8,015
belinostat	Beleodaq	2014	\$38,895	\$38,895
olaparib	Lynparza	2014	\$12,155	\$12,155
panobinostat	Farydak	2015	\$9,926	\$9,915
palbociclib	Ibrance	2015	\$10,690	\$10,677
lenvatinib	Lenvima	2015	\$13,766	\$13,750
trifluridine/tipiracil	Lonsurf	2015	\$13,404	\$13,388
irinotecan liposome	Onivyde	2015	\$10,202	\$10,190
trabectedin	Yondelis	2015	\$11,334	\$11,321
osimertinib	Tagrisso	2015	\$12,750	\$12,735
cobimetinib	Cotellic	2015	\$7,484	\$7,475
daratumumab	Darzalex	2015	\$21,834	\$21,808
ixazomib	Ninlaro	2015	\$8,920	\$8,911
elotuzumab	Empliciti	2015	\$15,804	\$15,786
venetoclax	Venclexta	2016	\$8,618	\$8,560
cabozantinib	Cabometyx	2016	\$16,679	\$16,567
atezolizumab	Tecentriq	2016	\$14,937	\$14,837
olaratumab	Lartruvo	2016	\$17,176	\$17,061