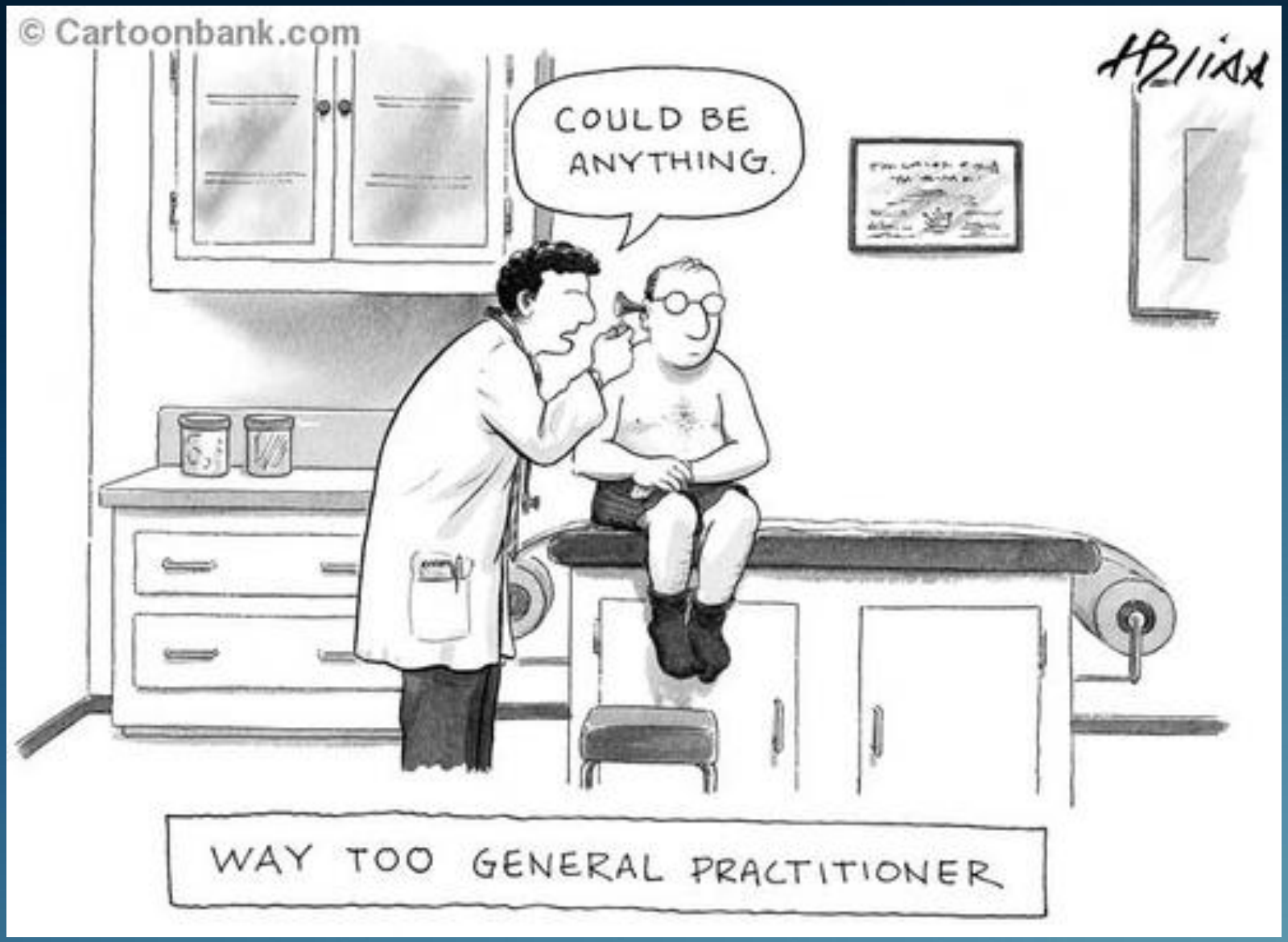
What's So Special About Specialty Pharmacy?

WAHLU
Brookfield Suites and Conference Center
April 23rd, 2013
1:15 pm – 2:15 pm

Scott Whitmore, R.Ph.
Director of Clinical Services
Milliman IntelliScript
Brookfield, Wisconsin

Agenda

- Why is specialty pharmacy important to underwriting?
- Characteristics of a specialty medication
- Top specialty drugs and therapeutic categories
- Specialty pharmacy marketplace
- Future trends in specialty pharmacy



WAHLU

Milliman

IntelliScript

Specialty pharmacies are better equipped than traditional retailers.

- Better access to unconventional medications
- Resilient to low patient volume
- Storage and handling expertise
- Navigation of complicated reimbursement schemes
- Clinical services

Specialty pharmacy impacts life underwriting.

- Generally speaking, specialty meds have higher mortality.
- Specialty medications may not show up in Rx history report.
- Specialty medications are becoming more prevalent.

Characterizations of specialty medications

- High Cost
- Treats complex chronic conditions
- Typically biologically based
- Administered via injection or infusion; inhaled or oral
- Commonly prescribed and administered by a specialist

Characteristics of specialty medications (cont.)

- Requires special handling and distribution
- Patient care management usually required
- Often paid through medical benefit

Typical specialty therapies are very expensive.

Disease State	Annual Rx Expense*
Anemia / Neutropenia	$10,000
Crohn's Disease	$20,000
Cystic Fibrosis	$30,000
Growth Deficiency	$25,000
Hepatitis C	$25,000
Infertility	$2,400
Multiple Sclerosis	$20,000
Oncology	Up to $50,000+
PKU	Up to $200,000+
Psoriasis	$20,000
Pulmonary Hypertension	Up to $250,000
Rheumatoid Arthritis	$20,000

** Fairview Specialty Pharmacy, Minneapolis, MN*

In 1990 there were 10 specialty drugs on the market. By 2010, that number had swelled to roughly 250 drugs.

Managed Markets Monday, Accessed Dec. 12, 2012

2012 Specialty Pharmacy Study

- Obtained specialty drug list
  - 177 drugs
- Queried IntelliScript data base
  - 2011 data
  - 96M total fills from 4M applicants
  - 450K specialty fills from 86K applicants
- Analyzed results
  - Top specialty drugs by therapeutic category
  - Top prescriber specialty by specialty drug
  - Top specialty pharmacies
  - Specialty drugs available on IntelliScript Rx reports

2012 Milliman Mortality Study

- Matched Rx Histories to deaths
  - Using Social Security Master Death File
- Applicants from 2005-2011
  - 10 million Rx History reports
  - 275 million Rx fills
  - 45,000 deaths
- Analyzed relative mortality by:
  - Red, Yellow, Green
  - Drug Classes
  - Individual Drugs
  - Rule Results



What are examples of specialty drugs?



Anticoagulants



Inflammatory Conditions



Osteoporosis



Multiple Sclerosis



Organ Transplant



Oncology



HIV Aids



Hepatitis



Infertility



Hemophilia

WAHLU

Milliman IntelliScript

Top Anticoagulant Specialty Drugs

		2011 IntelliScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
LOVENOX	DVT, Angina, MI, Pregnancy	21,252	35,935	188%
ARIXTRA	Thromboembolic Disease	1,790	3,056	102%
FRAGMIN	Thromboembolic Disease	950	1,524	132%
INNOHEP	DVT	28	110	---



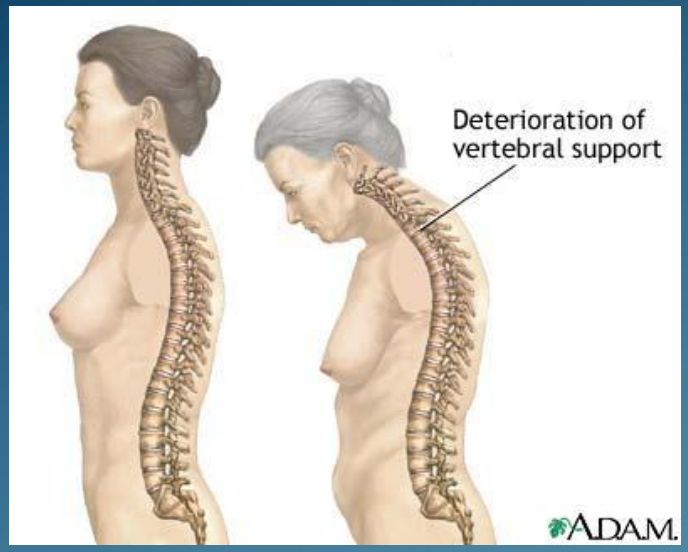
Top Inflammatory Specialty Drugs

		2011 IntellScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
ENBREL	RA; Plaque Psoriasis	4,364	52,231	182%
HUMIRA	RA; Crohn's Disease; AS; Psoriatic Arthritis	2,965	33,857	219%
REMICADE	RA; AS; Psoriatic Arthritis; Plaque Psoriasis	195	1,306	---
CIMZIA	Crohns; RA	193	1,247	---
SIMPONI	RA, AS, Psoriatic Arthritis	179	1,171	---
STELARA	Psoriasis	127	510	---
KINERET	RA	32	267	---
AMEVIVE	Plaque Psoriasis	29	144	---



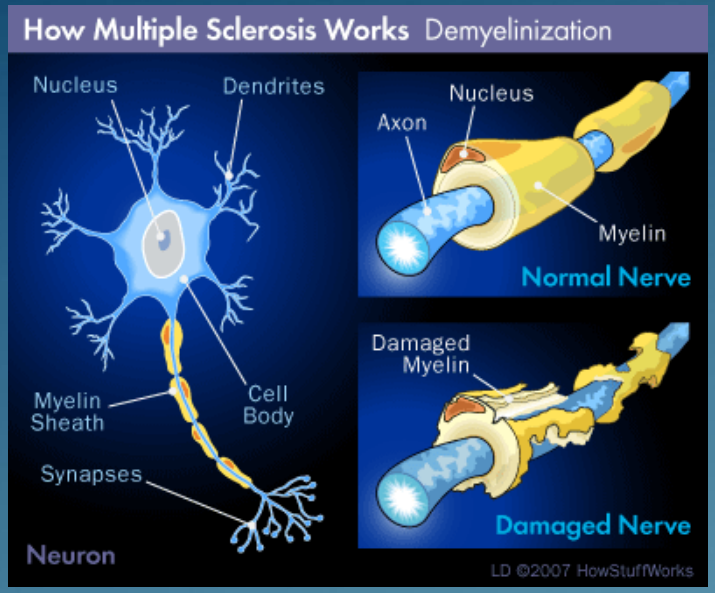
Osteoporosis Specialty Drugs

		2011 IntelliScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
MIACALCIN	Osteoporosis; Paget's Disease	3,981	27,064	103%
FORTEO	Osteoporosis	1,842	12,908	106%



Top Multiple Sclerosis Specialty Drugs

		2011 IntelliScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
AVONEX	Multiple Sclerosis	1,396	16,319	348%
COPAXONE	Multiple Sclerosis	771	10,099	353%
BETASERON	Multiple Sclerosis	285	4,113	288%
AMPYRA	Multiple Sclerosis	143	626	---
GILENYA	MS, Relapsing	32	165	---

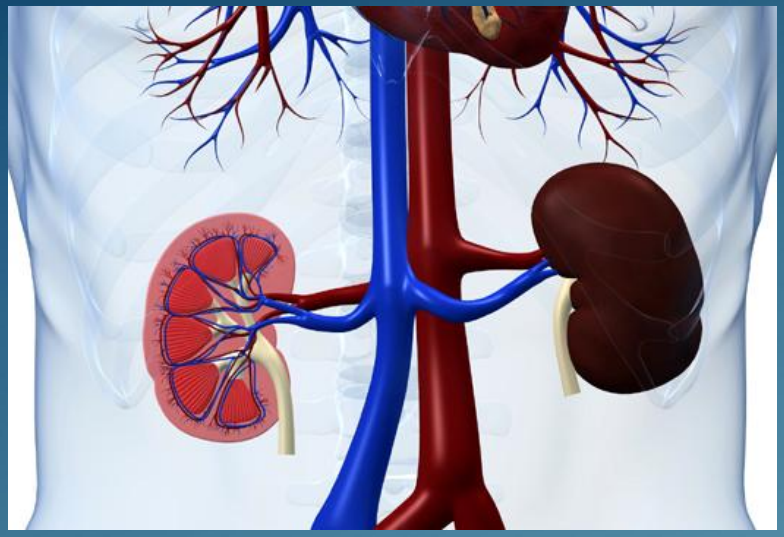


WAHLU

Milliman IntelliScript

Top Organ Transplant Specialty Drugs

		2011 IntelliScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
PROGRAF	Renal Transplant Rejection	1,022	12,474	853%
RAPAMUNE	Organ Transplant Rejection	190	2,124	1105%
MYFORTIC	Organ Transplant Rejection	159	1,449	789%



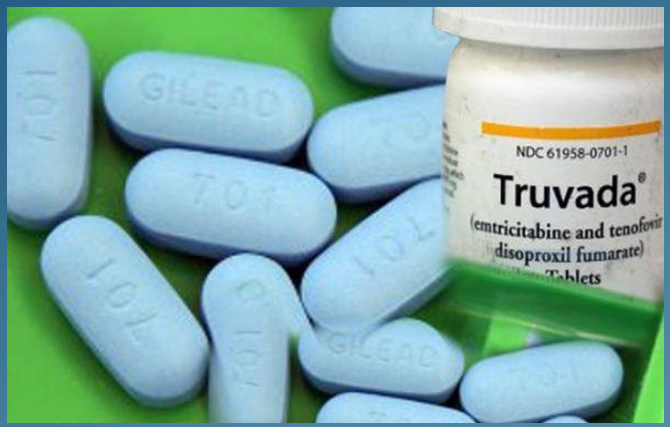
Top 10 Cancer Specialty Drugs

		2011 IntelliScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
LUPRON DEPOT	Cancer; Endometriosis; Uterine Fibroids	4,264	10,229	140%
ONSOLIS	Cancer Pain	902	5,646	269%
XELODA	Breast, Colon Cancer	373	1,709	1369%
GLEEVEC	Chronic Myeloid Leukemia	193	2,262	433%
REVLIMID	Multiple Myeloma	147	1,035	1896%
ZOMETA	Malignant Hypercalcemia; Bone Cancer	139	237	262%
TARCEVA	Lung, Pancreatic Cancer	87	381	1844%
INTRON-A	Leukemia; Lymphoma; Melanoma	85	407	447%
XGEVA	Bone Cancer	53	80	---
NEXAVAR	Renal Cell, Hepatocellular Cancer	43	202	2155%



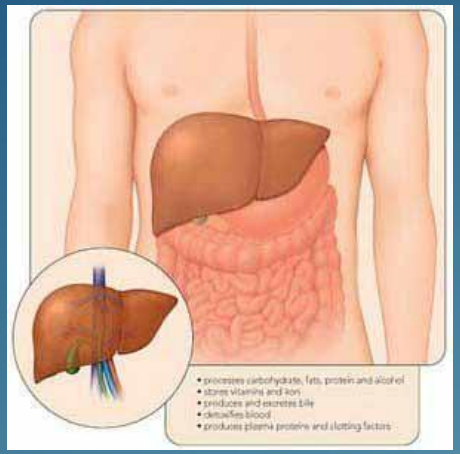
Top 10 HIV Specialty Drugs

		2011 IntelliScript Data		
Brand Name	Indication	Applicants	Fills	Relative Mortality
TRUVADA	HIV	901	8,517	904%
NORVIR	HIV	718	6,998	512%
ATRIPLA	HIV	711	8,233	465%
COMBIVIR	HIV	601	4,709	453%
REYATAZ	HIV	545	5,122	655%
VIREAD	HIV	528	5,473	453%
KALETRA	HIV	517	4,530	767%
SUSTIVA	HIV	392	4,926	810%
ISENTRESS	HIV	267	2,466	---
EPZICOM	HIV	252	3,440	739%



Top Hepatitis Specialty Drugs

		2011 IntelliScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
REBETOL	Chronic Hepatitis C	1,585	8,246	307%
PEGASYS	Chronic Hepatitis C	960	5,512	299%
PEG-INTRON	Chronic Hepatitis C	465	2,849	382%
EPIVIR	Chronic Hepatitis B; HIV	433	3,853	552%
BARACLUDE	Chronic Hepatitis B	314	3,756	601%
HEPSERA	Chronic Hepatitis B	267	3,374	500%
INFERGEN	Chronic Hepatitis C	91	599	---
INCIVEK	Hepatitis C	16	49	---
VICTRELIS	Hepatitis C	2	7	---



Top Infertility Specialty Drugs

		2011 IntelliScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
CHOREX-10	Female Infertility	2,493	5,609	145%
FOLLISTIM	Female Infertility	1,987	3,625	---
OVIDREL	Female Infertility	1,742	3,969	---
REPRONEX	Male, Female Infertility	1,650	3,442	---
GONAL-F	Male, Female Infertility	1,445	2,953	---
GANIRELIX ACETATE	Female Infertility	763	1,364	---
CETROTIDE	Female Infertility	190	291	---
LUVERIS	Female Infertility	79	151	---

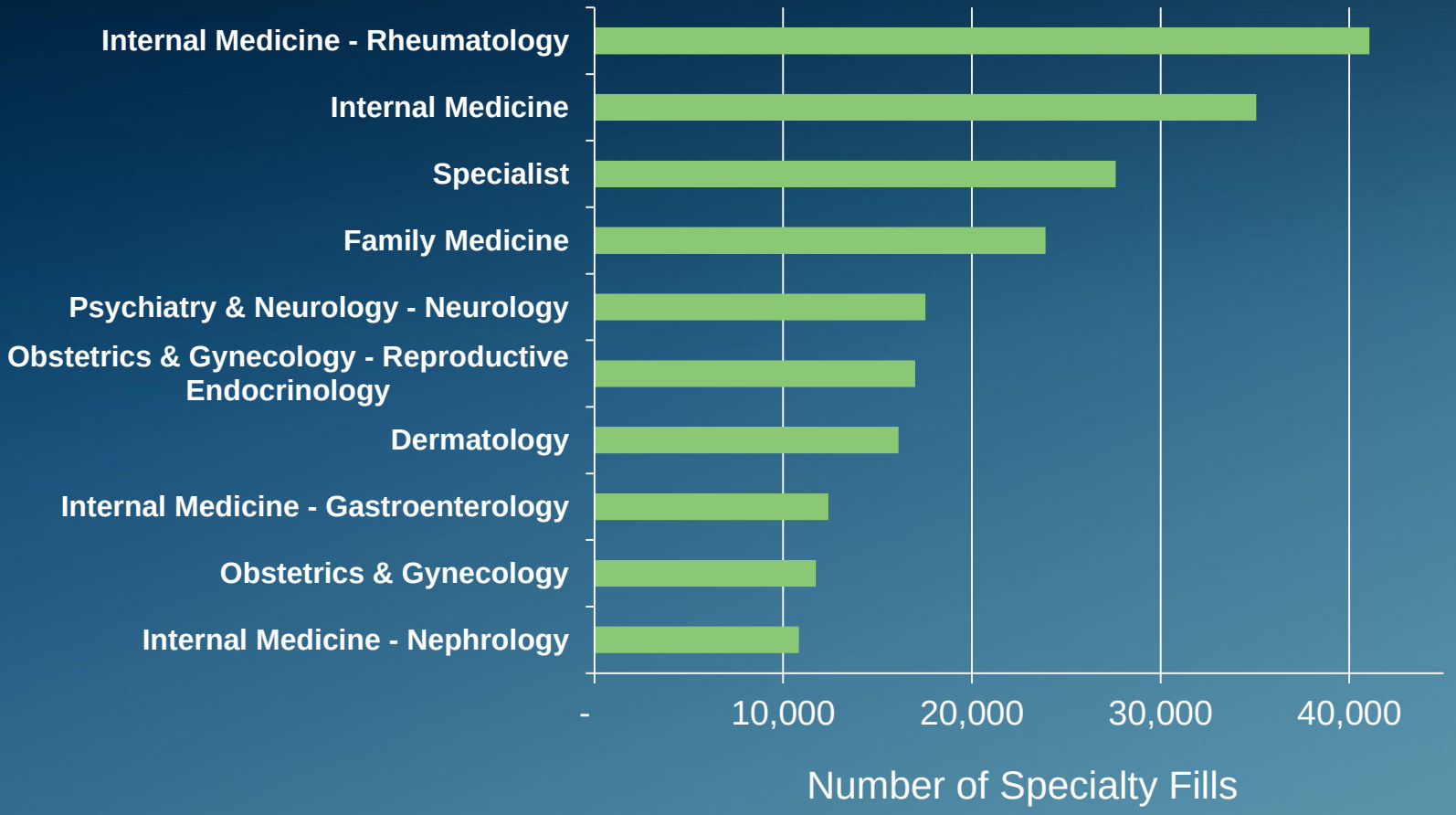


Hemophilia specialty drug data is less robust.

		2011 IntelliScript Data		
Brand Name	**Indication**	**Applicants**	**Fills**	**Relative Mortality**
RECOMBINATE	Hemophilia A	46	609	---
ADVATE	Hemophilia A	11	23	---
BENEFIX	Hemophilia B	10	26	---
HUMATE-P	Von Willebrand Disease; Hemophilia A	6	6	---
XYNTHA	Hemophilia A	3	6	---
NOVOSEVEN	Hemophilia B; Hemophilia A	3	4	---
ALPHANINE SD	Hemophilia B	2	20	---
ALPHANATE	Hemophilia A	1	1	---



IntelliScript's Top 10 Prescriber Specialties by Specialty Drug Volume



Specialty drugs can be categorized by method of reimbursement.



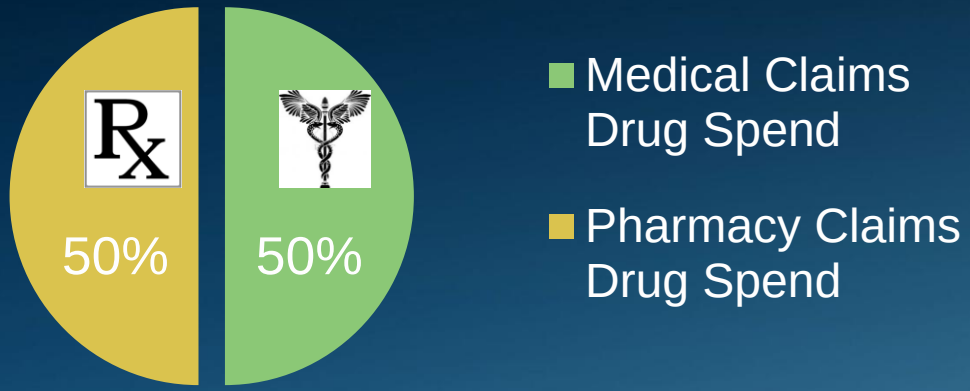
- **Pharmacy Claims**
  - Reimbursed by the pharmacy benefit
  - Dispensed by retail, mail or specialty pharmacy

VS.



- **Medical Claims**
  - Reimbursed by the medical benefit
  - Administered in the home, hospital or MD office
  - White & brown bagging

Total specialty drug spend is evenly split between medical claims and pharmacy claims.



- Spend is equal but more pharmacy claim transactions
  - Expensive oncology agents represent 40% of the medical spend.
- Pharmacy claim transactions and fill volume growing faster
  - Health plans and payers prefer PBM involvement

Milliman Specialty Medical Drug 2010 Commercial Benchmark Study

Other factors influence trend toward specialty pharmacy distribution.

- Availability of self-injectable and oral agents
- 340B pricing and greater savings
- Reduction in waste, misuse and abuse (prior authorization, approved indications, step therapy, formularies)
- Better analytics
- In 2010, specialty pharmacy drug spend increased greater than 3 times the rate of specialty medical drug spend.[1]

[1]*Milliman Specialty Medical Drug 2010 Commercial Benchmark Study*

Intelliscript Rx history reports are capturing a majority of specialty drugs.

- IntelliScript is seeing an estimated 60% of all specialty fills in the market[1]
  - IntelliScript Ratio: 450,000 / 96,000,000 = 0.00469
  - Commercial Ratio: 1,990,000 / 258,000,000 = 0.00770

- Remaining 40% not captured due to administration in:
  - Hospitals
  - Clinics
  - MD offices
  - Home health

[1]*Milliman IntelliScript and MarketScan Data*

PBMs dominate the specialty pharmacy marketplace





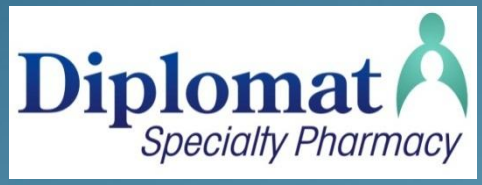






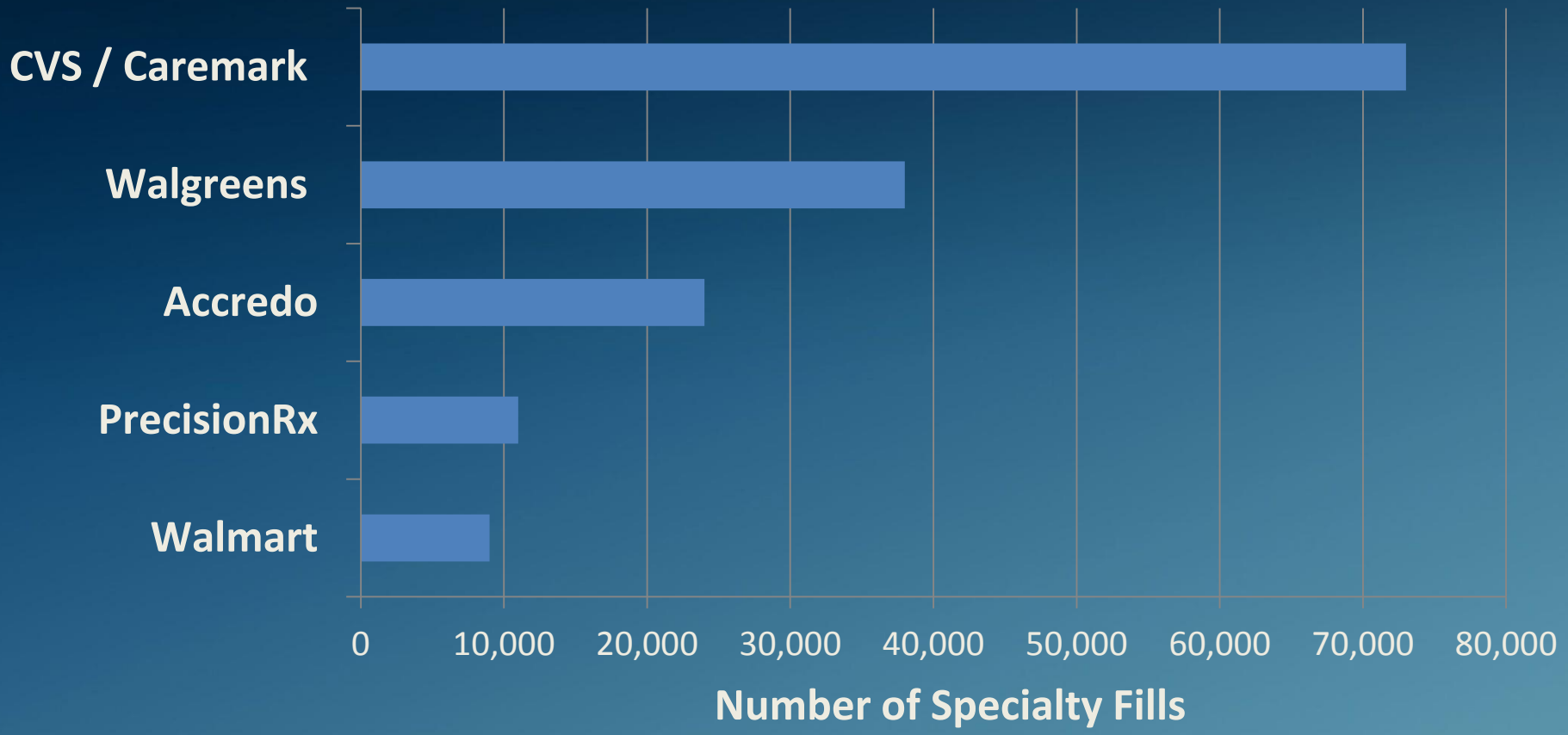






Specialty Pharmacy: Stakeholders and Markets

IntelliScript's Top Dispensers of Specialty Drugs



2011 Milliman IntelliScript Data


©Cartoonbank.com
"What's the next best medicine?"

Specialty drugs will continue to proliferate.

- 30% to 40% of Rx pipeline are specialty agents
- In 2013, 50% of the overall drug spend will be specialty
- By 2014, seven of the top 10 drugs based on revenue will be specialty agents

CVS Caremark Insights, 2010

Trend in specialty cost is growing faster.

- Overall healthcare costs, including medical and pharmacy, increased by 5.1%
- In 2010, total drug costs increased by 6.7%
- Specialty drug costs increased 13.2%

Milliman Specialty Medical Drug 2010 Commercial Benchmark Study

Cost containment strategies are on the horizon.

- More competition
- Better data analytics
- Better diagnostics and customized care
- Introduction of generic biologics

Underwriter's access to specialty pharmacy data will grow.

- Access to health insurance for est. 30M more members
- Growth in self-injectable and oral specialty drugs
- Continued transition of specialty to pharmacy benefit
- Expansion of data sources



WAHLU

Milliman

IntelliScript

Questions?

Thank You

Scott Whitmore, R.Ph.
Director of Clinical Services
Milliman IntelliScript
Brookfield, Wisconsin
(608) 345-7159
scott.whitmore@milliman.com