

Supplementary Material Table 1 Available rGH (ATC: H01AC01) in Caserta, Lazio, Palermo, Tuscany, Treviso and Umbria databases

Brand name (MA date)	Type of rGH	Indication for use							Dosage	Price ^a (in €)	Notes
		Children						Adults			
		insufficient secretion of GH (0,025–0,035 mg/kg/daily)	growth disturbance due to Turner syndrome (0,045–0,050 mg/kg/daily)	growth disturbance due to CKD (0,045–0,050 mg/kg/daily)	Prader-Willi syndrome (0,035 mg/kg/daily)	growth disturbance in short children born SGA (0,035 mg/kg/daily)	growth failure associated with SHOX deficiency (0,045–0,050 mg/kg/daily)	replacement therapy for severe GH deficiency (0,15–0,3 mg/daily)			
Genotropin (1998)	Reference product	✓	✓	✓	✓	✓		✓	Goquick 1 pen 12 mg	473,23	• Before reconstitution: store at 2-8°C, or at ≤ 25°C (for maximum 6 months); • Automatically ready-mixed solution (no handling); • Goquick device is single- use (no store in refrigerator) and allows minimum dose increments of 0,05 mg
									Goquick 1 pen 5,3 mg	232,24	
									Miniquick 7 cartridges 0,2 mg	52,86	
									Miniquick 7 cartridges 0,4 mg	114,80	
									Miniquick 7 cartridges 0,6 mg	151,76	
									Miniquick 7 cartridges 0,8 mg	214,79	
									Miniquick 7 cartridges 1 mg	279,51	
									Miniquick 4 cartridges 1,2 mg	180,28	
									Miniquick 4 cartridges 1,4 mg	221,69	
									Miniquick 4 cartridges 1,6 mg	257,89	
									Miniquick 4 cartridges 1,8 mg	295,08	
									Miniquick 4 cartridges 2 mg	332,36	
Humatrope (1997)		✓	✓	✓		✓	✓	✓	6 mg solution for injection	260,37	• Reduced waste of drug
									12 mg solution for injection	372,67	

									24 mg solution for injection	745,34	
Norditropin (1999)		✓	✓	✓		✓		✓	SimpleXx 5 mg/1,5 ml	192,84	• After reconstitution: possibility to be stored at ≤ 25 °C for maximum 3 weeks; • Reduced waste of drug
									SimpleXx 10 mg/1,5 ml	685,76	
									SimpleXx 15 mg/1,5 ml	578,51	
									Nordiflex 1 pen 5 mg	192,84	
									Nordiflex 1 pen 15 mg	578,40	
Saizen (2001)		✓	✓	✓		✓		✓	8 mg 1 cartridge click-easy	345,33	• Dose-memory function (adherence monitoring); • Hidden needle and different auto-injectors available; • Before reconstitution: possibility to be stored at <25°C; • After reconstitution: possibility to be stored at ≤ 25°C for maximum 7 days; • Reduced waste of drug
									6 mg 1 cartridge	247,48	
									1,33 mg solution for injection	54,86	
									12 mg/1,5 ml cartridge solution for injection	494,96	
Nutropinaq (2001)		✓	✓	✓				✓	10 mg 2 ml 1 cartridge	327,05	• Dose-memory function; • Needle shield; • Reduced waste of drug
Zomacton (1994)		✓	✓						4 mg solution for injection	171,29	• No needle; • Reduced waste of drug
Omnitrope (2006)	Biosimilar	✓	✓	✓	✓	✓		✓	5 mg/1,5 ml cartridge	126,62	
									10 mg/1,5 ml cartridge	240,55	
									Surepal 1 cartridge 5 mg/1,5 ml	126,62	
									Surepal 1 cartridge 10 mg/1,5 ml	240,55	

									Surepal 1 cartridge 15 mg/1,5 ;ml	360,83
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Legend: rGH= recombinant growth hormone (somatropin); MA= market authorization; GH= growth hormone; CKD= chronic kidney disease; SGA= small for gestational age.

^aData source: Farmadati: <http://www.farmadati.it/> - accessed: December 3rd, 2016.

Zimoser® was available in Italy between June 2010 and October 2013, but no dispensings were found in the participating databases.

Auxonorm® was available in Italy until August 2000.

Somatropin Biopartners® was not marketed in Italy, during the study period.