

VisualDRG™

Including NordDRG[™] grouper

Are You lost in DRG wonderland?

VisualDRG provides comprehensive tools for analyzing DRG grouping logic and for clinical coding quality assurance and DRG revenue calculation simulations.

VisualDRG - Overview

 VisualDRG Professional provides advanced and comprehensive tools for clinical coders, planners, controllers, quality assurance, revenue calculations and for DRG training.



VisualDRG

- Key features include:
 - Immediate visual grouper
 - Analysis of grouping logic
 - Validating input codes
 - DRG revenue calculation and weight tables
 - Automatic linkage to public DRG HTML documentation (if exists by the NCC)
 - Using custom weight tables, price lists or equivalence point prices
 - Patient data files can be imported in VisualDRG
 - Including an unique case id makes it easy to update data back to operative systems.
 - All changes are logged in a log file for later auditing.
 - Diagnosis and procedures code browser supports hierarchical selection of codes starting from upper level groupings.
 - Multiple settings for customizing VisualDRG to suit particular needs



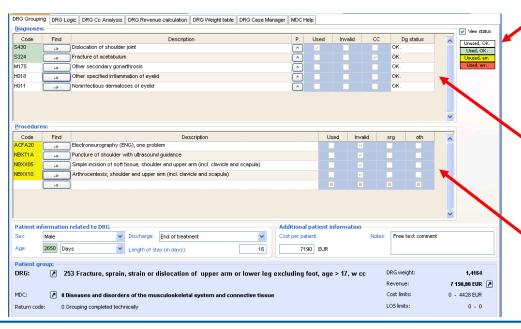
Main functions of VisualDRG DRG Grouping DRG Logic | DRG Cc Analysis | DRG Revenue calculation | DRG Weight table | DRG Case Manager **DRG Case Manager DRG Cc Analysis: DRG Grouping:** Load, sort, save, Analyze which dgs and prs make Interactive DRG DRG Case Manager select, edit and cases complicated grouping case by transfer DRG case case. DRG Grouping | DRG Logic | DRG Co Analysis | DRG Beverue calculation | DRG Weight table | DRG Case Manager data. portanabort, inkomplet, komplicerat med utdragen eller um poritariabort, inkomplet, med andra och icke specificerad postavabost konstlett eller irike specificesed, konstleeret i A.zes DRG weight tables: modes. Lakes 5 VisualDRG Browsing for DRG weight tables **DRG Logic:** Browser DRG logic rules to Operationer p&hibritishT medikati Nyfold, födelsevät 2500 g eller mer, med större op Lungtransplantation, kortvård see how grouping works Sensingstrangularistics internally. **DRG Revenue calculation:** 150 A therenslösning och delning av brid, komplicera Generate a DRG revenue calculation based on given Calculate price input. 0.00 SEK 0.00 SEK Cost limits for outliers 400 000 00 00V Length of stay:

490 000,00 SEK



DRG Grouping

- Enter necessary input data: diagnoses, procedures, age, gender, length of stay and discharge status.
- All codes can be found by using search function.
- One is able to see validity of the input data directly in the data entry form.



Color coding marks for each code:

- Code valid and affected to the result
- Code invalid but not affected
- Invalid and affected
- Invalid but not affected

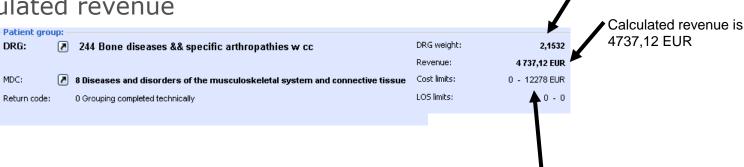
For each dg code one is able to see which diagnosis are complicating in this case, which affect the resulting DRG and which are erroneous.

For procedures one is able to see whether this code is counted as a surgical O.R. procedure and if it has affected the resulting DRG.



DRG Grouping: DRG weights, outlier limits and revenue

- In addition to resulting DRG and MDC you'll have also, based on the DRG and the selected weight table:
 - DRG weight
 - Outlier limits for length of stay
 - Outlier limits for actual cost per patient
 - Calculated revenue



Upper outlier limit for actual cost per case is 12278 EUR.

2,1532.

The weight in this DRG is



DRG Grouping: Additional fields

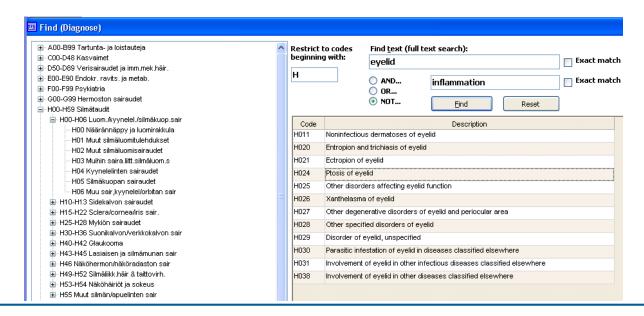
- In addition to the essential required fields in DRG grouping the following data can be used (entered, modified, loaded and saved).
- Encounter ID (key) makes synchronization with PAS and billing systems easy.
- Free text comments can be applied to multiple purposes:
 - Flag out cases that require changes to the codes.
 - Add additional information not included in the standard fields.
 - Comment changes made in data: what, by whom and when.





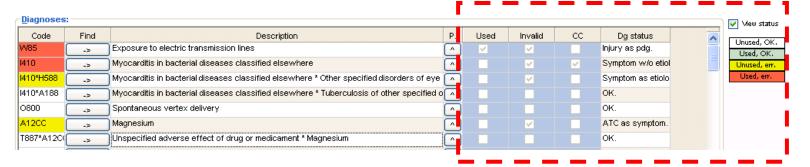
DRG Grouping: diagnosis and procedures code finder

- In addition to directly entering or loading from a file VisualDRG includes a comprehensive code finder.
 - Codes can be found hierarchically by starting from top level groups
 - You can use free text search
 - You can limit to codes beginning with certain characters
 - You can use multiple text search criteria (and / or) and optionally limit to whole word search





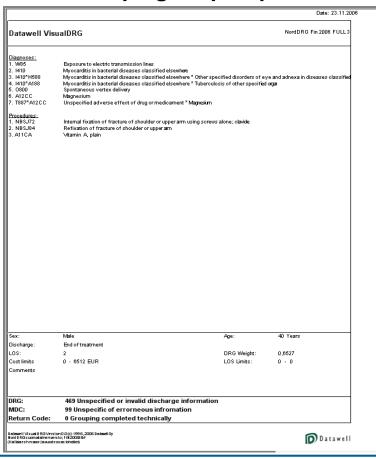
ICD-10 clinical coding impact analyses



- Valid and correct clinical coding is an essential pre-requisite for successful application of DRG. VisualDRG provides a comprehensive analysis of the codes used and notifies about erroneous codes that may lead to erroneous DRG.
- In the example above:
 - **W85** is an external cause of injury and it must not be used as the primary diagnosis.
 - **I410** an symptom code and it always requires etiology code as well.
 - **I410*H558** is a pair of diagnosis, where code I410 is merged with another code (H558) but this another code is not a valid etiology code but another symptom code.
 - **I410*A188** is a valid (symptom*etiology) pair.
 - **0800** is a valid diagnosis containing one code.
 - A12CC is ATC medication code, that cannot be used alone.
 - T887*A12CC is a valid diagnosis pair where ATC code is merged with another symptom code.



DRG Grouping: Report print-out



- Print-out report includes all input and output variables well formatted.
- You can also copy the whole case to clipboard by using one command and then paste all the data in Excel or in Word.



DRG Grouping: Integrated HTML DRG manual

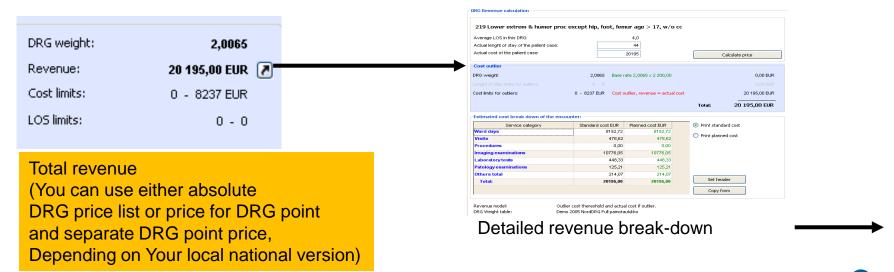
- VisualDRG supports direct linking from the result MDC to the DRG HTML manual published by the Nordic Center of patient classifications (*1
- The function can be activated directly by one push button next to MDC.
 Alternatively, you can select any MDC by using a menu selection.





DRG Revenue calculation

- DRG Revenue calculation provides calculation for the output DRG.
- Also outlier limits are taken into account.
- You can use your own weight table and point price and marginal cost for extra ward days after the DRG outlier limit.





DRG Revenue calculation: using more than one weight table

- You can load multiple weight tables in the application
- You can use for example national weight table, own districts weight table and separated weight table for insured patients.
- Custom weight tables can be imported simply from Excel files.

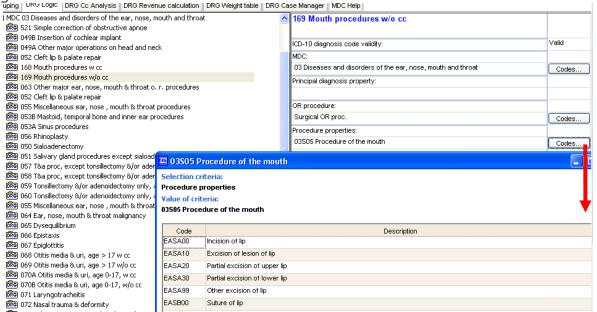




DRG Logic

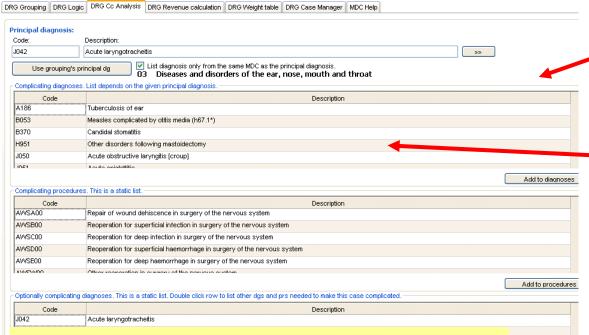
- You can browse logical grouping rules for each MDC and DRG
- Based on the resulting DRG in DRG Grouping page you can immediately jump to this DRG in the logic browser.

 Logic is defined not directly based on codes but based on lists of multiple codes. VisualDRG provides direct browsing of these code lists.





DRG Cc Analysis



Cc = Complications and commorbidities; For many DRG groups there is normal and cc group.

Cc variant has higher DRG weight and is thus usually more expensive.

- You can list all diagnoses and procedures that make the case complicated for the selected principal diagnosis.
- Adding code from the list is one mouse click away.
- You can limit to the same MDC as the principal dg to see most relevant dgs.
- For optionally complicating codes you can list also the codes needed.



DRG Weight tables

- DRG weight table browser is immediately available inside VisualDRG
- Tables can be sorted based on any column, such as outlier information

RG Group	ing DRG Logic DRG Cc Analysis DRG Revenue c	alculation	RG Weight table	DRG Case Ma	nager MDC	Help		
Demo 20	105 NordDRG Full painotaulukko							
DRG	Description	Weight	Cost max limit	Avg. LOS	Inpat %	Outpat %	Imgaging %	Laboratory %
290	Thyroid procedures	1,6253	8203	3,00	71,20	11,26	12,17	3,63
2900	Thyroid procedures, short therapy	1,1822	3495	3,00	32,69	0,66	57,65	2,35
291	Thyroglossal procedures	0,8482	2018	1,00	15,35	0,14	75,61	1,11
2910	Thyroglossal procedures, short therapy	0,5782	850	1,00	20,38	0,00	77,30	0,56
292	Other endocrine, nutritional or metabolic disease o.	6,3607	64540	0,00	0,00	0,00	80,05	0,00
293	Other endocrine, nutritional or metabolic disease o.	1,6700	9941	10,00	64,01	4,82	22,72	4,83
2930	Other endocrine, nutritional or metabolic disease o.	0,2100	850	4,00	45,00	4,29	42,82	2,50
294	Diabetes age > 35	1,2076	6331	0,00	0,00	0,00	0,00	0,00
295	Diabetes age 0-35	1,0408	4969	6,00	84,29	3,88	1,64	9,28
296	Nutritional & misc metabolic disorders, age > 17 w c	1,2158	6785	4,00	88,55	0,72	1,58	7,57
297	Nutritional & misc metabolic disorders, age > 17 w/c	0,9251	4659	5,00	76,10	5,80	4,79	11,17
298	Nutritional & misc metabolic disorders, age 0-17	1,5557	9147	4,00	76,95	5,53	4,73	11,53



DRG Case Manager

- You can open a file including your DRG cases in VisualDRG.
- File may contain DRGs or it can be automatically grouped when importing on-the-fly.
- You can edit data directly in the table and select cases in DRG grouping page.
- Data can be saved back for updates in PAS or billing systems.

RG Grouping	DRG Logic	DRG Cc Analysi	s DRG Reveni	ue calculation	DRG Weight	table DRG C	ase Manager	MDC Help						
	C:\VDRG7\Alp N= 1000	oha6 (US) Pro\Visu	ualDRG_6_demo	_data_DRG_c	ost.drg					pen directly RG batch gr		en		
Case ID	£Dg 1A	£Dg 1D £Dg	2A £Dg 2D	£Dg 3A 4	£Dg 3D	£Dg 4A	£Dg 4D	£Dg 5A	Pr 1	Pr 2	Pr 3	Pr 4	≨ ×	Age, days
2	K802	Z940		C6488		C6488							1	24414
1	K802	Z940		C6488		C6488			3				1	24414
3	K759	F1025		F329									2	17282
4	S610	M779		G560									1	11588
5	S060	R480		G819					XPX99				2	9862
6	R509	1495		1251									2	29125
7	M472	G402		1252		1693							1	17275
8	1472	148		1252					XF400				1	26087
9	N309	E119		1252									2	29574
10	K565	148		1269					TPH20	JFK10	JEA00	TFP20	1	27745

Cases can be sorted By any column for Example for finding Easily DRG 470 cases. Input file can be

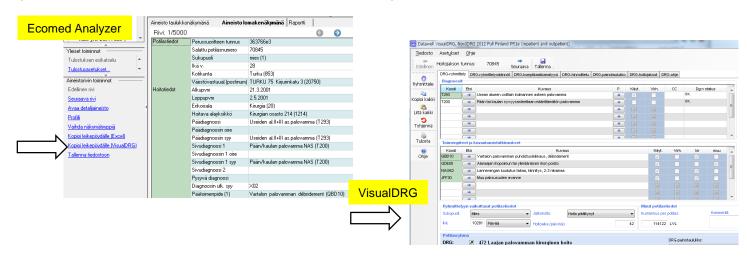
batch grouped (automatic grouping for the whole file) by using this option.

You can use the grouped file by other tools as well. Command line batch grouper for grouping w/o VisualDRG UI is available as a separate product.



Integrating from other applications

- VisualDRG provides open interfaces for transferring data from other applications, such as Datawell's Ecomed Analyzer
- In addition to file import (see page 17) also special clipboard copy format is provided for transferring whole case information in one operation, when the sending application supports this format (as specified in the VisualDRG manual)
- For example, transfer one case data from Ecomed Analyzer to VisualDRG





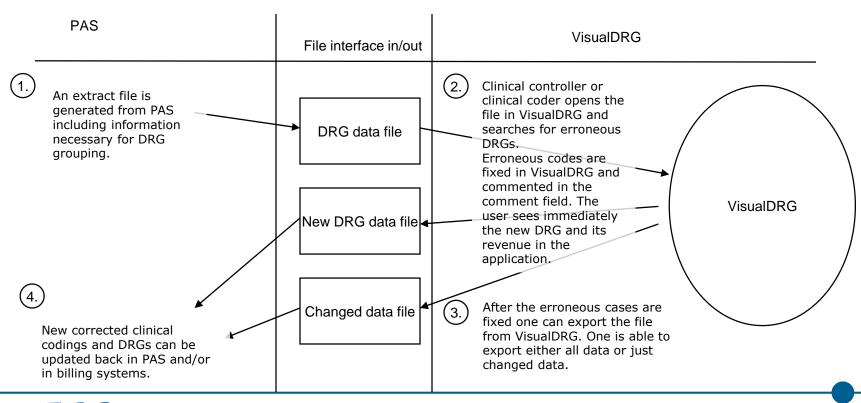
VisualDRG Settings

 Multiple settings allows customization of VisualDRG to suit particular needs (localization etc. for convenience).

ttings				
GUI Settings:				
✓ Keep the previous search (criteria	Number of dg codes (1-20):		Ď
✓ Yiew the codes of dg/pr ca	its and props	Number of pr codes (1-20):		15
Automatic, immediate grou	ping	Default ward time, days:		2
Primary care grouping mod	de			
£DRG manual (HTML):				
In Internet, address:	http://drg.haigekassa.ee/dr	ghandbook_ee_2006.html		
 Installed in local files. 				
No not use DRG manual.				
ORG reimbursement calcula	ation:			
DDC		Currency label:	0	
DRG equivalence point price:	19800 EEK	EUR	○ ISK • EE	
Daily rate for LOS outliers:	4000 EEK	O NOK	O Custom:	\$
DRG weight table:	Demo 2005 NordDRG Full pain	otaulukko	~	
DRG revenue model:	Outlier cost thereshold and ac	~		
	✓ Use procedures price list in	revenue calculation.		
Log file for edited encounte	r data:			
File name:	C:\My documents\DRG_QA_ca	ases.dat		
	 Append 	Overwrite (per	session)	
			Cancel	OK



One possible scenario for DRG related quality assurance for billing information and clinical coding





Further DRG related products of FCG Prodacapo

- Procapo's DRG related software products for health care include:
 - Comprehensive product family for DRG grouper products
 - Based on single certified NordDRG grouper + multiple applications and APIs
 - DRG Servers (SOA: sockets, REST) for PAS integration, one-case grouping
 - Batch groupers (Windows and Linux, for file grouping in batch or ETL processes)
 - Windows (DLL) grouper interfaces (APIs)
 - VisualDRG Web Release for simple DRG grouping and DRG development support
 - Full-featured cost-per patient/patient level costing solutions (KPP, PLC), market leader in the Nordic countries
 - Software for calculating cost per patient based on intermediate service costing, operations, lab, imaging
 - Case-mix planning and price-setting tool
 - Solution for regional episodes and value-based health-care (Ecomed Regional)
 - Reporting and analyzing application for DRG grouped patient data, episode-of-care automatic building and patient-flow analyses (Qlik Sense Dashboards)

