

Nordic Casemix Centre - Case

#863 - Surgery for diagnoses belonging to MDC 98

2023-02-14 16:12 - Mats Fernström

Status:	Closed	Start date:	2023-02-14
Priority:	Minor	Spent time:	0.00 h
Assignee:	Mats Fernström		
Category:			
Initiator:	Sweden	Target year:	2025
MDC:	GEN	Owner / responsible:	
Target Grouper:	SWE		

Description

This case includes a large amount of diagnoses and procedures but we still consider it to be rather minor because the suggested changes are mostly of principal nature without a need for economic analyses. Furthermore, quite a few patients will be affected by the changes.

*To facilitate the understanding of this case, read the parts (A1-F) one by one and filter the tables of the enclosed TC in the **column "Part"**, also one by one.*

Swedish DRG codes on a three-digit level in the following text include all sub-codes.

Cases with interventions for problems belonging to MDC 98 are sometimes grouped unsatisfactory. This is because it is the legal gender that affects the grouping, not the biological gender. All the diagnoses below belong to MDC 98 and, in the grouper, the grouping features will be changed to corresponding values beginning with 12 if the legal gender is male or 13 if the legal gender is female.

A. A630 'Condyloma acuminatum' (A6300 'Anogenital (venereal) warts') including the Swedish sub-codes A630A, A630B, A630C & A630X have **DGCAT 98M03** that is converted to **12M03** or **13M03** depending on the patient's legal gender. Usual interventions for venereal warts are the following.

A1. KGD00/KGSD00 'Partial excision of glans penis', **KGD10/KGSD10** 'Destruction of lesion of penis' and **KGD96/KGSD96** 'Other partial excision of penis'. These codes have **PROCPR 12S02** that leads to **DRG N15N/O 'Penisoperationer'** (341X/O 'Penis procedures') if the patient is male.

A legal female with a remaining penis, however, is grouped to DRG Z60N/O 'Annat sällsynt, eller felaktigt, kombination av huvuddiagnos och åtgärd' (477N/O 'Rare or incorrect combination of diagnosis and other procedure'). A penis procedure is a penis procedure irrespective of the gender so we want also these cases to be grouped to DRG N15N/O 'Penisoperationer' (341X/O 'Penis procedures'). This can be achieved by insertion of additional rules in the table drg_logic, rules that are copies of the existing with **12S02** but with 'mdc' = 13 instead of 12 (see TC C934, sheet **drg_logic, part A1**).

A2. KFD73/KFSD73 'Destruction of lesion of skin of scrotum' and **KGD20/KGSD20** 'Destruction of lesion of skin of penis' have **PROCPR 12S08** (among others) that leads to **DRG N32O 'Andra operationer vid sjukdom i prostata, pung etc, öppenvård'** (345O 'Other male reproductive system o. r. procedures, short therapy') or **DRG N31N 'Andra operationer vid benign sjukdom i prostata, pung etc'** (345X 'Other male reproductive system o. r. procedures except for malignancy') when the principal diagnosis belongs to MDC 12 but only together with greater anesthesia. Without greater anesthesia there will be the conservative **DRG N50 'Inflammation/infektion i pung, penis etc, ...'** (350 'Inflammation of the male reproductive system ...').

These groupings are OK for males but a legal female with a remaining penis, however, is grouped very differently, namely to DRG J79 'Hudingrepp, övriga, ...' (826V 'Minor dermatologic intervention) in primary care and specialized outpatient care and to DRG O45C/E 'Infektion i området adnexa-vulva, ...' (368 'Infections, female reproductive system) for inpatients. Once again, a penis procedure is a penis procedure and a scrotal procedure is a scrotal procedure irrespective of the gender so we want also legal females with a remaining penis to be grouped to the same DRGs as biological/legal males. This can be achieved by insertion of additional rules in the table drg_logic, rules that are copies of the existing with **12S08** but with 'mdc' = 13 instead of 12 (with exception for the rules with 12M01). In addition, **PROCPR 09V05** must be deleted from KFD73/KFSD73 and KGD20/KGSD20 to prevent that the cases are grouped to DRG J79 'Hudingrepp, övriga, ...' (826V 'Minor dermatologic intervention). After that, KFD73/KFSD73 and KGD20/KGSD20 without greater anesthesia on a legal female with a remaining penis will still be grouped to DRG O45 (Infections, female reproductive system). To get DRG N50 instead we can do the following.

- Add a new PDGPRO (**12P50**) to A630/A6300 and the Swedish sub-codes A630A, A630B, A630C & A630X.
- Add a new DGPROP (**12X50**) to KFD73/KFSD73 and KGD20/ KGSD20.
- Insert new rules based on these features leading to DRG N50.

See TC C934, sheets **drg_logic, proc_feat, dgprop_name & pdgprop_name, part A2**.

A3. LEB10/LESB10 'Excision of lesion of vagina', **LEB30/LESB30** 'Destruction of lesion of vaginal mucosa', **LFB10/LFSB10** 'Excision of lesion of vulva or perineum' and **LFB20/LFSB20** 'Destruction of lesion of vulva or perineum'. These codes have **PROCPR 13S04** (and OR = 1) that leads to **DRG O20 'Operationer på cervix, vagina och vulva, ...'** (360 'Vagina, cervix & vulva procedures') when the principal diagnosis belongs to MDC 13.

A legal male with remaining female genital organs, however, is grouped to DRG Z60N/O 'Annan sällsynt, eller felaktig, kombination av huvuddiagnos och åtgärd' (477N/O 'Rare or incorrect combination of diagnosis and other procedure'). An intervention on vagina or vulva is an intervention on vagina or vulva irrespective of the legal gender so we want also legal males with remaining female genital organs to be grouped to the same DRGs as biological/legal females, i.e. DRG O20/360. This can be achieved by insertion of additional rules in the table drg_logic, rules that are copies of the existing with 13S04 but with 'mdc' = 12 instead of 13. See TC C934, sheet **drg_logic, part A3**.

B. C763 'Malign tumör i bäckenet' (C7630 'Malignant neoplasm of pelvis') has **DGCAT 98M01** that is converted to **12M01** or **13M01** depending on the patient's legal gender. Possible interventions (among others) are all where the procedure code begins with NER (code plus NESR).

NER09/NESR09 Incomplete excision of soft tissue tumour of pelvis

NER19/NESR19 Complete excision of soft tissue tumour of pelvis

NER29/NESR29 Extended excision of soft tissue tumour of pelvis

NER39/NESR39 Block excision of soft tissue tumour of pelvis

NER49/NESR49 Incomplete excision of tumour of bone or cartilage of pelvis

NER59/NESR59 Complete excision of tumour of bone or cartilage of pelvis

NER69/NESR69 Extended excision of tumour of bone or cartilage of pelvis

NER79/NESR79 Block excision of tumour of bone or cartilage of pelvis

NER99/NESR99 Other operation for tumour of pelvis

These cases are all grouped to DRG Z60N/O 'Annan sällsynt, eller felaktig, kombination av huvuddiagnos och åtgärd' (477N/O 'Rare or incorrect combination of diagnosis and other procedure') irrespective of the patient's gender. This is because there are no rules for the combination MDC 12 or 13 and the existing PROCPR values of the procedure codes beginning with NER/NESR.

This is unsatisfactory and we want the greater interventions (Complete excisions, Extended excisions and Block excisions) to be grouped to **DRG N01N** 'Stor bäckenoperation vid sjukdomar i prostata, pung, penis etc' (335N 'Major male pelvic procedure') or **DRG O01N** 'Radikal hysterectomi, vulvektomi och bäckenutrymning' (353N 'Pelvic evisceration, radical hysterectomy & radical vulvectomy') depending on the gender of the patient. This is easily achieved by adding PROCPR **12S01** and **13S01** to the procedure codes for the greater interventions. The other (Incomplete excisions and Other operation) can have PROCPR **12S08** 'Other male reproductive system OR procedure' and **13S08** 'Other female reproductive system OR procedure' that will lead to DRG N32O 'Andra operationer vid sjukdom i prostata, pung etc, öppenvård, (345O 'Other male reproductive system o. r. procedures, short therapy' and DRG O39O 'Andra operationer vid gynekologiska problem, öppenvård' (365O 'Other female reproductive system o. r. procedures, short therapy') respectively for outpatients and DRG N30 'Andra operationer vid tumör i prostata, pung etc, ...' and DRG O39C/E 'Andra operationer vid gynekologiska problem, ...' (365 'Other female reproductive system o. r. procedures'). One can question the need for PROCPR values beginning with 12 or 13 for the NESR codes for excision of tumors of bone or cartilage. These codes are probably used together with principal diagnoses in MDC 08 but C7630 'Malignant neoplasm of pelvis' may also occur. See TC C934, sheet **proc_feat, part B**.

C. I862 'Bäckenvaricer' (I8620 'Pelvic varices') that belongs to MDC 98 can be treated with different interventions, among them **VPC91/PHSB99** 'Ligature of other vein'). Due to PROCPR **12S03**, inpatient males are then grouped to DRG N11 'Testikeloperationer för benigna sjukdomar, ...' (340 'Testes procedures for non-malignancy ...') and outpatient males are grouped to DRG N12O 'Testikeloperationer, öppenvård' (340O 'Testes procedures, short therapy'). Females, inpatients as well as outpatients, are grouped to DRG Z60N/O 'Annan sällsynt, eller felaktig, kombination av huvuddiagnos och åtgärd' (477N/O 'Rare or incorrect combination of diagnosis and other procedure').

None of these groupings are OK. Other possible interventions, e.g. **VPA90** 'Öppen exploration av annan visceral ven', **VPL90** 'Annan öppen operation på annan visceral ven' & **VPW90** 'Annan endovaskulär operation i annan visceral ven' (plus code for all three is **PHSWD9** 'Other operation on vein of abdomen') are grouped to DRG N31 'Andra operationer vid benign sjukdom i prostata, pung etc' (345 'Other male reproductive system o. r. procedures except for malignancy') and DRG O39 'Andra operationer vid gynekologiska problem' (365 'Other female reproductive system o. r. procedures) and we want VPC91/PHSB99 to be grouped in the same way when the principal diagnosis is I8620 'Pelvic varices'.

This can be achieved by replacing PROCPR 12S03 with PROCPR 12S08 and 13S08 for VPC91/PHSB99. (PROCPR 12S03 must be deleted because otherwise that property will still lead to the DRGs N11/340 and N12O/340O mentioned above.)

However, VPC91/PHSB99 for the treatment of **I861 'Varikocele' (I8610 'Scrotal varices')** must still lead to the DRGs N11/340 and N12O/340O mentioned above. To achieve that we can add a new PDGPRO (**12P11**) to I861/I8610 and a new PROCPR (**12S11**) to VPC91/PHSB99 and insert rules based on these features leading to the DRGs **N11/340** and **N12O/340O**. See TC C934, sheet **drg_logic, dg_feat, proc_feat, pdgprop_name** and **procprop_name, part C**.

D. P155 'Förlossningsskada på yttre könsorgan' (P1550 'Birth injury to external genitalia').

(Note that it is about birth injuries on the newborn, not on the mother.) Gender correction does not occur in newborns but we still see a problem with this code. The code belongs to MDC 98 that is converted to MDC 12 if the newborn is male and 13 if the newborn is female. All interventions that may be relevant on males have a PROCPR beginning with 12S or 12V so newborn males are grouped adequate.

Newborn females with birth injury to external genitalia can be treated with procedures where the codes begin with **LFE** (plus codes beginning with **LFSE**) that stands for repair of vulva or perineum and they are also grouped adequate.

However, it is possible to use also procedure codes beginning with **MBC** (plus codes beginning with **MBSC**), e.g. **MBSC20** 'Repair of obstetric laceration of vulva'. None of them has a PROCPR beginning with 13 so all newborn females are grouped to DRG Z60N/O 'Annan sällsynt, eller felaktig, kombination av huvuddiagnos och åtgärd' (477N/O 'Rare or incorrect combination of diagnosis and other procedure').

All of the MBSC codes have PROCPR **14S04** 'Procedure of normal delivery', which seems remarkable. Repair of obstetric lacerations is hardly a procedure of normal delivery.

We suggest that the varval text for PROCPR 14S04 is changed to "Procedure associated with delivery" and that PROCPR 13S04 'Vagina, cervix or vulva procedure' is added to the MBC/MBSC codes, similar to the procedure codes beginning with LFE (plus codes beginning with LFSE). Then newborn females treated with a intervention where the code begins with MBSC will be grouped to DRG O20 'Operationer på cervix, vagina och vulva' (360 Vagina, cervix & vulva procedures). See TC C934, sheet **proc_feat, part D**.

E. Injuries of external genital organs, diagnoses with DGCAT 98M99:

S302/S3020 Contusion of external genital organs

S315/S3150 Open wound of other and unspecified external genital organs

S380/S3800 Crushing injury of external genital organs

S382/S3820 Traumatic amputation of external genital organs

Possible interventions:

KFH70/KFSH70 Suture of scrotum

KFH73/KFSH73 Reconstruction of scrotum

KFH96/KFSH96 Other reconstructive operation of scrotum and scrotal organs

KGH00/KGSH00 Suture of penis

KGH96/KGSH96 Other reconstructive operation on penis

LFE00/LFSE00 Suture of vulva

LFE10/LFSE10 Plastic repair of vulva

LFE20/LFSE20 Suture of perineum

LFE96/LFSE96 Other repair of vulva or perineum

The codes beginning with KF or KG lead to the following DRGs when the patient is male:

- DRG **N320** 'Andra operationer vid sjukdom i prostata, pung etc, öppenvård' (345O Other male reproductive system o. r. procedures, short therapy) via PROCPR **12S08**.
- DRG **N31N** 'Andra operationer vid benign sjukdom i prostata, pung etc' (345X Other male reproductive system o. r. procedures except for malignancy) via PROCPR **12S08**.
- DRG **N15** 'Penisoperationer' (341X Penis procedures) (but KGSH00 only with greater anesthesia) via PROCPR **12S02**.

The codes beginning with LF lead to

- DRG **O20** 'Operationer på cervix, vagina och vulva' (360 Vagina, cervix & vulva procedures) via PROCPR **13S04** (but LFSE00 & LFSE20 only with greater anesthesia) when the patient is female.

However, a legal female with remaining male external genitals and a legal male with remaining female external genitals are incorrectly grouped.

We suggest insertion of extra rules for the DRGs mentioned above and in these extra rules the MDC values are changed from 12 to 13 and vice versa. See TC C934, sheet **drg_logic, part E** (this are the same changes as in part A1, A2 & A3).

F. Sterilization

ICD code Z302 (Z3020 'Sterilization') has DGCAT 98M04 which is converted to 12M04 or 13M04, depending of the legal gender of the patient but these DGCAT values are not used in the table drg_logic, at least not in the Swedish version. There the MDC values (12 or 13) are used instead.

Possible interventions:

KFD46/KFSD46 Bilateral vasectomy or ligature of vas deferens

LGA00/LGSA00 Sterilisation by ligature of Fallopian tubes

LGA10/LGSA10 Sterilisation by destruction or division of Fallopian tubes

LGA11/LGSA11 Laparoscopic sterilisation by destruction or division of Fallopian tubes

LGA20/LGSA20 Sterilisation by constriction of Fallopian tubes

LGA21/LGSA21 Laparoscopic sterilisation by constriction of Fallopian tubes

LGA22/LGSA22 Hysteroscopic sterilisation

LGA96/LGSA96 Other female sterilisation

LGA97/LGSA97 Other laparoscopic female sterilisation

LGA98/LGSA98 Other transluminal endoscopic sterilisation

Together with ICD code Z302 these procedure codes lead to

- **DRG N21** 'Resektion eller ligatur av sädesledare för sterilisering, ...' (351X Sterilization, male) via **PROCPR 12S07**
- **DRG O25** 'Gynekologisk laparoskopi eller öppen sterilisering, ...' (361 Gynecological laparoscopy or sterilization in laparotomy) via **PROCPR 13S03**
- **DRG O27** 'Laparoskopisk/endoskopisk operation på tubor för sterilisering, ...' (362 Laparoscopic or other endoscopic sterilization) via **PROCPR 13S07**
- **DRG P06N** 'Vaginal förlösning, med sterilisering och/eller skrapning' (374 Vaginal delivery w sterilization &/or d&c), via **PROCPR 14S02**, (but only together with delivery). These groupings are OK as long as the legal gender is the same as the biological gender but otherwise there will be misleading DRGs.

KFD46/ KFS46 (Bilateral vasectomy or ligature of vas deferens) on a **legal female** is grouped to DRG **O99/ 852** (Other doctor visits for diseases in the area of adnexa-vulva, ...) or DRG **O50/369** (Menstrual & other female reproductive system disorders).

All procedures beginning with LGA/ LGSA mentioned above on a **legal male** is grouped to DRG **Z60/ 477** (Rare or incorrect combination of diagnosis and other procedure).

The latter cases should be grouped according to the performed procedures and that can be achieved by insertion of new rules for the DRGs N21/351, O25/361, O27/362, rules that are copies of the existing with PROCPR 12S07, 13S03 or 13S07 but MDC = 12 is changed to MDC = 13 and vice versa. See TC C934, sheet **drg_logic, part F**

There is no need to do a change for DRG P06N because the rules for that DRG don't demand a specific MDC.

History

#4338 - 2023-02-14 16:22 - Mats Fernström

- Attachment *TC_C934 for NDMS.xlsx* added
- Attachment *TC_C934 for Admin.xlsx* added

#4374 - 2023-03-07 15:23 - Lotta Sokka

2023-03-07 Lotta Sokka

Finland recognizes the importance of this issue. We still want to do some analyses for this. We therefore suggest to keep this case open

#4429 - 2023-03-29 10:42 - Mats Fernström

Mats Fernström, the National Board of Health and Welfare, Sweden, 2023-03-29 (SWE ID C934)

Further analysis shows several problems with our proposal. We need to rethink and it may take considerable time so we want this case postponed until spring 2024.

#4430 - 2023-03-29 11:17 - Kristiina Kahur

- Status changed from Active to Further active

Nordic Casemix Centre/Kristiina Kahur 29-3-2023

Thank you Mats for clarification. No changes in 2024 SWE and NOR version will be made.

As agreed in EG meeting, in addition to proposal made by Sweden, a separate task under 'Development initiative' is created (#877) to consider additional solutions which would solve the issue of MDC 98 diagnosis codes and procedure codes linked to those codes, which requires gender information to assign the case into DRGs.

This case remains further active.

#4431 - 2023-03-29 11:17 - Kristiina Kahur

- Target year 2025 added
- Target year deleted (2024)

2026-06-26

#4435 - 2023-04-11 13:26 - Kristiina Kahur

- Status changed from Further active to Closed

Nordic Casemix Centre/Kristiina Kahur 11-4-2023

Based on the feedback from Sweden, this case will be closed. A new case will be created once the additional analysis is conducted and the necessary changes reconsidered.

Files

TC_C934 for Admin.xlsx	40 kB	2023-02-14	Mats Fernström
TC_C934 for NDMS.xlsx	40 kB	2023-02-14	Mats Fernström