

The “Italian Society of Urodynamics’ (SIUD) delivery & pelvic dysfunctions card”: an Italian language screening tool

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Abstract: Urinary and anal incontinence, pelvic organ prolapse, perineal pain and reduction in pelvic floor muscle strength and function can occur after delivery as a result of damage to the pelvic structures. Debate is open on risk factors, prevalence and management of pelvic postpartum dysfunctions. In Italy few centers offer a specific management of obstetric pelvic injuries and often the treatment of these dysfunctions relies on the willingness of single professionals. Moreover there is often inadequate communication between the birth center and professionals who take care of the woman during the puerperal phase and most women are poorly, or not at all, informed about postpartum pelvic dysfunctions, their evolution and treatment opportunities. To face these problems the Italian Society of Urodynamics, continence neurourology and pelvic floor (SIUD) has established a specific committee. Starting from existing experiences, the group has created a recording tool aiming at standardizing women pelviperineal assessment in the postpartum period and selecting women who need to be addressed to conservative treatment. This tool has been named “SIUD delivery & pelvic dysfunctions card” and is presented here.

Key words: Pelvic Floor Dysfunctions; Incontinence; Postpartum; Delivery; POP.

INTRODUCTION

Pregnancy and delivery are well known factors of damage to pelvic floor structure and function.

Urinary incontinence can follow a vaginal delivery because of injury to connective tissue support, to pelvic nerves or muscles and also directly to urinary tract.¹ Damage of the pelvic structures can also give onset to anal incontinence, pelvic organ prolapse (POP), perineal pain, dyspareunia and impairment of voluntary pelvic floor muscle function.²

Pelvic floor muscle treatment (PFMT) has shown to be effective in the treatment of urinary incontinence (Grade of recommendation A), and a rehabilitative approach is also proposed for treatment of POP, anal incontinence, pain and dyspareunia. Literature other than on urinary incontinence is scant; nevertheless there are evidences that PFMT can improve POP symptoms and severity (Grade of recommendation A) and it is recommended also in the treatment of fecal incontinence as a part of a conservative management (grade B).³

Strategies to deliver PFMT to women during pregnancy and in the postpartum period can vary widely: from providing PFMT to all women, either symptomatic or not (preventive approach) to providing it exclusively to symptomatic women as a specific treatment measure.

The first hypothesis is clearly not feasible while considering cost-benefit and sustainability of PFMT. In fact even the 5th International Consultation on Incontinence states: “it should be considered the cost benefit of population based approaches to health professional taught postpartum PFMT to all postpartum women regardless of their status”.³

The identification of selection criteria for PFMT during pregnancy and after delivery is therefore a key point.

To deal with this topic the Italian Society of Urodynamics, continence, neurourology and pelvic floor (SIUD) has established a specific committee. The first

commitment of the group, starting from Italian and international existing experiences, has been to propose a recording tool named “SIUD delivery & pelvic dysfunctions card” with the double aim to provide a standardized evaluation system for epidemiological studies and to select women who might need conservative treatment in the postpartum period.

BACKGROUND

Two different approaches in selecting women to refer to PFMT after delivery can be considered:

– a *risk factors approach*, selecting at hospital discharge women considered at risk of developing pelvic dysfunctions;

– a *signs of damage approach*, selecting women who still have symptoms or signs of pelvic dysfunction at follow up in the postpartum period.

The *risk factor approach* has been adopted in more than one birth center. Of interest is the experience from the Obstetrics and Gynecological Clinic of Brescia where a standardized tool (called “Perineal card”) was developed, consisting of a check list of risk factors resulting in a final risk score. On the basis of that score, women were addressed or not to a PFMT.⁴

The main advantage of this approach is to provide to the birth center a simple tool to select women who need more attention, due to an increased risk of developing pelvic floor dysfunctions. A similar approach was proposed in a previous study by Chiarelli, even if this work took in account only 2 risk factors, forceps delivery or a vaginal delivery of a large baby > 4000 g.⁵

A lot of risk factors have been identified as significantly associated with the occurrence of pelvic floor trauma. Unfortunately at present no agreement exists about which factor or combination of factors can influence the outcome in terms of urinary incontinence, prolapse, anal inconti-

nence, pain and dyspareunia. For these reasons the risk factors approach doesn't represent the best way of selecting the group of women that most need a PFMT.

On the opposite side, *the signs of damage approach* has been adopted in the "Mamme senza incontinenza (Mothers without incontinence)" Project, sponsored in 2003 by the Piemonte Regional Health Authority.

In that case the selection criteria were based on the presence at two month postpartum consultation of at least one amongst 5 symptoms or signs: urinary incontinence (if still persistent 30 days after delivery), anal incontinence (if still persistent 1 week after delivery); more than mild pain or dyspareunia still reported at the time of consultation; POP > 2nd degree according to the Halfway system and perineal testing at digital palpations < 2 in a 0-4 scale (AIPDA testing).⁶

The *signs of damage approach* has the advantage of selecting women who actually "have" pelvic floor dysfunction, narrowing patients number in order to better address specific treatment resources.

Data from a selection of 124 primiparous women within the "Mamme senza incontinenza" Project showed at 2 months after delivery, a 12 % incidence of one or more positive criteria. Those women were addressed to conservative treatment. More in detail, urinary incontinence was present in 9,6% of cases, fecal incontinence in 0,8%, perineal testing <2 (AIPDA score) in 4% and perineal pain/dyspareunia in 4,8% of women.⁷

It's worth to notice that in Italy it's quite common that women have their first postpartum consultation by a gynecologist who is not related to the delivery center. In this case, due to a lack of information about pregnancy and delivery risk factors a "signs of damage approach" represents the only way to deal with the problem.

THE SIUD PROJECT

The project aims at improving care of postpartum pelvic floor dysfunctions. Promoting knowledge and awareness of postpartum pelvic floor dysfunctions amongst health care professionals as well as amongst women via a standardized approach, is part of this aim.

The first step of the project has been to define a standard instrument to collect data for both kinds of approach: the *Risk Factor* and the *Signs of damage approach*. While the first one simply needs to collect data concerning pregnancy and delivery, the second approach is a little bit more complex, dealing with different anatomical compartments and functions. The effort through simplicity and adoption of already validated instruments, whenever possible, has been considered while designing this tool.

The result is a "**SIUD delivery & pelvic dysfunctions card**" composed of two different sections:

A "**Delivery Card**" collecting obstetrical data and potential risk factors and a "**Post partum screening card**" collecting the *signs of damage*.

Delivery Card (appendix 1)

As clearly shown in *appendix 1* the *Delivery Card* includes the most significant obstetrical data and potential risk factors beside mother demographical data. It also takes into consideration urinary retention (if persistent 24 hour after delivery) and preexisting or during pregnancy pelvic functional disorders. This tool is intended to be completed by the clinical staff at the time of discharge from the birth center. Therefore it should be available for the first puerperal consultation.

Post partum screening card (appendix 2)

The "post partum screening card" is intended to record the presence of pelvic dysfunctions after delivery. As

shown in *appendix 2* the card is composed of five sections: urinary incontinence, anal incontinence, pelvic organ prolapse, pain and dyspareunia and pelvic floor muscle dysfunction. Based on validated existing instruments every section includes a quantification system to provide an outcome measure for observational or interventional approaches. For each considered dysfunction an assessment tool is included in the card as follows:

1. Urinary incontinence: an Italian validated translation of the ICI q SF.⁸
2. Anal incontinence: the so called Wexner incontinence score.⁹
3. Pelvic organ prolapsed: POP-q simplified staging system.¹⁰
4. Pain and dyspareunia: visual analogic system (VAS).
5. Pelvic floor muscle dysfunction: the Oxford modified grading system.¹¹

We then arbitrarily established a cut-off for every section (see *appendix 2*) as a selection criteria for management (counseling, lifestyle interventions or rehabilitation according to the condition) when at least in one section the cutoff is exceeded, so a population that is worthwhile of attention can be selected.

This tool is intended to be completed by the clinical staff at postpartum consultation.

Further step of the SIUD committee on Pregnancy & Pelvic dysfunctions will be to standardize a management protocol for women selected via the *Post partum screening card*. In that protocol data collected through the Delivery Card will be compared with those emerging from the Screening card and management outcomes.

DISCUSSION

Epidemiological studies show that up to 33% among primiparous are affected by urinary incontinence during the first 3 months postpartum and that within the first year postpartum small changes in prevalence occur.¹

The prevalence of anal incontinence after childbirth is reported as up to 26-38% between 6 weeks-6 months postpartum and recent studies suggest to extend postpartum follow-up visits beyond the typical 6-8 weeks to provide surveillance for potential anal incontinence.¹²

Very few studies investigated pelvic organ prolapse (POP) prevalence shortly after delivery, although POP is commonly considered a frequent consequence of delivery. A recent study reports that POP Q stage > 2 was present at 6 months postpartum in 18, 1% of women who delivered by spontaneous vaginal delivery and in 29% of cases after instrumental vaginal delivery.¹³

Perineal pain and dyspareunia during the first trimester postpartum are reported by many women after vaginal delivery, and spontaneous recovery is reported in the great majority of them. Nevertheless perineal pain is still reported by 3-6 % of women at one year after delivery¹⁴ and dyspareunia by 24% at 6 months and 8% at 12 months.¹⁵

A recent review on pregnancy and postpartum related pelvic floor disorders states that there is some evidence that PFMT can be used to reduce urinary incontinence during pregnancy and up to 1 year after birth.¹⁶ Moreover PFMT could have a long-term effect, as reported by Dumoulin, who showed benefits of physiotherapy for post partum urinary incontinence still present 7 years after treatment.¹⁷ On the contrary evidence of PFMT efficacy in the postpartum period in case of fecal incontinence is insufficient.¹⁶

As a population based approach it is clearly not feasible, we need to establish selection criteria for PFMT in postpar-

tum period. The selection criteria can range from the simple identification of risk factors for pelvic floor dysfunctions to a more complex symptoms-based approach or, even more selectively, to restrict PFMT to women with documented pelvic floor damage after delivery.

Currently in our country there are at least 3 problems when dealing with post partum pelvic floor dysfunction: 1. *Availability*: few centers provide specialized management and in many cases the possibility of being treated depends on the willingness of single professionals; consequently the approach to postpartum pelvic dysfunctions is poorly standardized and not commonly available. 2. *Communication*: in many cases no communication exists between birth centers and professionals who take care of women in the postpartum period. 3. *Awareness*: many women are not enough, or not at all, informed about postpartum pelvic dysfunctions, their evolution and treatment opportunities.

Therefore postpartum pelvic dysfunctions should be better addressed from healthcare providers. This comes from epidemiological evidence compared with the availability of effective treatments. The SIUD committee has worked to provide a standardized assessment tool that combines obstetrical data with signs and symptoms of pelvic floor dysfunction in the postpartum period. We think that providing a standardized evaluation and establishing criteria for selecting women who need care might improve the management of women affected by postpartum pelvic dysfunction.

CONCLUSIONS

Delivery is the most stressful event for the pelvic floor occurring during a woman's lifespan. Nevertheless, at present, management of potential obstetric injury to the pelvic floor is extremely controversial. Moreover from a clinical point of view it is currently a neglected topic, and this is particularly true in Italy. The Italian Society of Urodynamics has defined an Italian language standardized system, the "SIUD delivery & pelvic dysfunctions card" to collect data about delivery, to evaluate mothers in postpartum and to select women who most need PFMT. This will help in the future both for research and clinical purposes.

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Appendix 1 and Appendix 2 can be downloaded from www.pelviperineology.org with regular size characters

APPENDIX 1

DELIVERY CARD

Surname.....Name.....(mother) **NUMBER**
 Delivery date/...../..... **TEXT** YES NO

Age (mother)			
Previous vaginal delivery (number)			
BMI (at delivery)			
Dystocic labour (type)		yes	no
Second stage of labour (minutes)			
Precipitous labour		yes	no
Induced labor (if "yes", specify the method: oxytocine, prostaglandines, amniotomy/other)		yes	no
If induced labor specify the clinical indication: hypertensive disorders/gestational diabetes/post-term prolonged pregnancy/premature membrane rupture/other			
Emergency caesarean section		yes	no
Elective caesarean section		yes	no
Episiotomy (if "yes", specify if midline or mediolateral)		yes	no
Vaginal-perineal tear (0-4 scale as reported below)*		yes	no
Episiotomy complications (infection, haematoma, tear, other)			
Vacuum extraction delivery		yes	no
Forceps delivery		yes	no
Kristeller maneuver		yes	no
Epidural analgesia		yes	no
Cefalic circumference (cm)			
Fetal weight (grams)			
Twin birth (number)		yes	no
Labour position (recumbent, squat, on all fours, on the side, into water, other)			
Urinary retention after delivery (if persistent after 24 hours)		yes	no

Dysfunctions before delivery	Before pregnancy		During pregnancy	
	yes	no	yes	no
Stress urinary incontinence	yes	no	yes	no
Urge urinary incontinence	yes	no	yes	no
Anal incontinence (flatus)	yes	no	yes	no
Anal incontinence (stool)	yes	no	yes	no
Dyspareunia	yes	no	yes	no

**Perineal-vaginal tear grading*

Intact No tissue separation at any site

First degree	Injury to the skin only (i.e. involving the fourchette, perineal skin and vaginal mucous membrane)	
Second degree	Injury to the perineum involving perineal muscles but not the anal sphincter	
Third degree	Injury to perineum involving the anal sphincter complex	<ul style="list-style-type: none"> • 3a: Less than 50% of external anal sphincter thickness torn • 3b: More than 50% of external anal sphincter thickness torn • 3c: Both internal and external anal sphincter torn
Fourth degree	Injury to perineum involving the anal sphincter complex (external and internal anal sphincter) and anal epithelium and /or rectal mucosa)	

APPENDIX 2

POSTPARTUM SCREENING CARD

1) URINARY INCONTINENCE

YES NO

Type: stress urge mixed other

ICIQ-SF
(INTERNATIONAL CONSULTATION ON INCONTINENCE QUESTIONNAIRE SHORT FORM)

Thinking about how you have been, on average, over the past four weeks:

1. How often do you leak urine?*

0
 1 about once a week or less often
 2 two or three times a week
 3 about once a day
 4 several times a day
 5 all the time

2. We would like to know how much urine you think leaks.
How much urine do you usually leak (whether you wear protection or not)?

0 None
 1 A small amount
 4 A moderate amount
 6 A large amount

3. Overall, how much does leaking urine interfere with your everyday life?
Please ring a number between 0 (not at all) and 10 (a great deal)

0 1 2 3 4 5 6 7 8 9 10

*tick the box if you leak urine more than once a month, less than once a week

CUT OFF SCORE >=1

2) ANAL INCONTINENCE

Fecal incontinence yes no
 Flatus incontinence yes no
 Soiling yes no

WEXNER SCORE

Incontinence	Never	Rarely Less than 1/month	Sometimes More than 1/month Less than 1/week	Usually More than 1/week Less than 1/day	Always More than 1/day
Solid	0	1	2	3	4
Liquid	0	1	2	3	4
Gas	0	1	2	3	4
Wear pad	0	1	2	3	4
Lyfestyle altered	0	1	2	3	4

Total score

CUT OFF
At least of the following

- SCORE > 0 (almost 1) if solid or liquid incontinence
- SCORE > 1 (almost 2) if flatus incontinence

3) PELVIC ORGAN PROLAPSE

Simplified POP-Q STAGING

STAGE 0	No prolapse demonstrated
STAGE 1	Most distal portion of the prolapse is more than 1 cm above the level of the hymen
STAGE 2	Most distal portion of the prolapse is 1 cm or less proximal to or distal to the plane of the hymen
STAGE 3	The most distal portion of the prolapse is more than 1 cm below the plane of the hymen.
STAGE 4	Complete eversion of the total length of the lower genital tract is demonstrated

Most distal portion is:
 anterior central posterior

CUT OFF SCORE >=2

4) PERINEAL PAIN AND DYSPAREUNIA

	YES	NO
1-Perineal pain	<input type="checkbox"/>	<input type="checkbox"/>
2- If "yes", do you think it is a problem for you?	<input type="checkbox"/>	<input type="checkbox"/>
3-Dyspareunia	<input type="checkbox"/>	<input type="checkbox"/>
4- If "yes", do you think it is a problem for you?	<input type="checkbox"/>	<input type="checkbox"/>
5- Resumption of sexual acitivity	<input type="checkbox"/>	<input type="checkbox"/>
6- If "yes", how many weeks after delivery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PERINEAL PAIN

VISUAL ANALOGIC SCALE (0-10)

DYSPAREUNIA

VISUAL ANALOGIC SCALE (0-10)

MARINOFF dyspareunia scale

0- No dyspareunia

1- Intercourse is painful but the degree of discomfort does not prevent penetration

2- The pain prevents intercourse from taking place on most occasions

3- Pain results in total apeareunia

REDUCED VAGINAL SENSITIVITY AT INTERCOURSE

(compared to pre-pregnancy sensitivity)

VISUAL ANALOGIC SCALE (0-10)

CUT OFF

If perineal pain or dyspareunia are a problem (if answered "yes" to questions 2 or 4)

5) PELVIC FLOOR MUSCLE DYSFUNCTION
MODIFIED OXFORD GRADING

0 = nil (no discernible muscle contraction)

1 = flicker (a flicker or pulsation is felt under the examiner's finger)

2 = weak (an increase in tension is detected without any discernible lift)

3 = moderate (muscle tension is further enhanced and characterized by lifting of the muscle belly and also elevation of the posterior vaginal wall; a grade 3 or stronger can be observed as an in-drawing of the perineum and anus)

4 = good (increased tension and a good contraction are present which are capable of elevating the posterior vaginal wall against resistance)

5 = strong (strong resistance can be applied to the elevation of the posterior vaginal wall; the examining finger is squeezed and drawn into the vagina)

Grade

left

right

CUT OFF
Grade <=2
(even if one side only)

SELECTION CRITERIA FOR MANAGEMENT

Dysfunction	Evaluation tool	Cut off
UI	ICI q SF	≥1
AI	Wexner score	≥1 if solid or liquid and/or ≥ 2 if gas
POP	Simplified POP q staging	≥2
Pain/ dyspareunia	VAS	If it is a problem for the woman
Pelvic floor	Oxford Score	≤2