

## PRODUCT FOCUS: DISPOSABLE PADS FOR WOMEN WITH LIGHT INCONTINENCE – MAKING THE RIGHT PRODUCT CHOICE.

### Aims of Study

Studies from around the world estimate the prevalence of urinary incontinence in community dwelling women to be between 9% and 72% (1). Absorbent pads are one of the main methods used for managing incontinence and represent a substantial cost for health services. However, with a bewildering array of products available at a wide range of prices there is little independent guidance available to help users, professionals and purchasers to make informed purchasing choices. The aim of this study was to evaluate and report on the current range of disposable pads for women with light incontinence. The products evaluated were those on the UK market in September 2000, but the majority of the pads tested were also available throughout Europe and in the US.

### Methods

Sixty women aged between 50 and 91 (mean age 68.5) tested each of the 12 products for five days. The products were randomised using Latin squares (2) to enable a balanced order of testing. Pad performance was measured using two tools:

- *A product performance questionnaire* - subjects rated sixteen aspects of pad performance as *good, okay* or *poor*. They also rated their '*Overall opinion*' of the pad on the same scale and this question was used as the primary outcome variable (POV).
- *A pad leakage diary* – subjects rated leakage by weighing the used pads using a spring balance and recording the amount of leakage from the product (*none, a little, a lot*).

Statistical analysis was carried out using SAS (Statistical Analysis Software, version 8). Comparisons were made between the products using logistic regression modelling that takes into account the repeated observations from each subject. The modelling relates the probability of a particular outcome (e.g. '*Overall opinion*' is '*good*') to levels of factors that could affect outcome (e.g. type of pad, test order). Each pair of products were compared using a significance level of 0.1% which, with pairwise comparisons between the 12 products, results in an overall significance level of just above 5%. It is necessary to use this low level of significance (0.1%) as it reduces the likelihood of finding statistically significant differences between the twelve products by chance.

### Results

Prior to the start of the study a group of users were consulted on the pad features that they considered important. *Leakage, fit* and *smell* were rated as first or second most important by the greatest proportion of the 43 female respondents (67%, 51% and 26%, respectively). These aspects of pad performance clearly represent key user priorities and it was reassuring to see statistically significant differences between products in these areas.

In general all of the pads performed adequately across all 16 areas on the *product performance questionnaire* and in the *pad leakage diary*.

The data from the *product performance questionnaires* showed that whilst all pads did perform satisfactorily *three* pads performed particularly well and represented good *all round* products, whilst *one* pad stood out as the least successful performer, see Table 1.

The *pad leakage diary* revealed that all the products performed generally well in terms of ability to prevent leakage of urine: data showed that at 10g of urine 81% to 95% of all pads did not leak '*at all*'. This is very encouraging as leakage is one of the most important aspects of pad performance for users (3).

### Most successful products

The 'Prevail extra plus' and 'Tena lady extra' performed particularly well and the proportion of subjects who found them to be 'good' was statistically significantly higher than *at least* one other product in four areas of performance (including *fit* and *smell*). For the primary outcome variable 'Overall opinion', the proportion of subjects who rated these products as 'good' (50% and 57% respectively) was statistically significantly higher than for *two* other products.

One other product the 'Anamini extra' also performed particularly well, the proportion of subjects who found this product to be 'good' was statistically significantly higher than *at least* one other product in six areas of performance (including *leakage* and *smell*). For the primary outcome variable 'Overall opinion' 41% of subjects rated this product as 'good' and this proportion was statistically significantly higher than for *one* other product.

### Least successful product

The 'Attends 3' was the least successful product tested, the proportion of subjects who found this product to be 'poor' was statistically significantly higher than *at least* one other product in five areas of product performance (including leakage). When subjects were asked to rate their 'Overall opinion' of this product 49% rated it as 'poor'. This proportion was statistically significantly higher than for *two* other products.

### Conclusions

The results of this evaluation show that in general, *most* products performed adequately on *most* performance aspects. However, there were clearly some pads that performed *better* than the rest of the group and were *good all round* performers. One pad in particular performed *less* well than the rest of the group.

The results indicate that it is certainly possible for individuals to purchase pads that perform well in key areas and are also reasonably priced. But given that some pads did perform substantially better and some substantially worse than the rest of the group, those wishing to purchase pads in large quantities for contract purposes would be wise to use this evaluation as a guide and to buy samples of a variety of products to try before making a large purchasing commitment.

Table 1 Proportion of subjects rating products as 'good', 'Okay' 'Poor' in key performance areas and POV.

Product name	% of subjects rating Leakage as:			% of subjects rating Fit as:			% of subjects rating Smell as:			% of subjects rating Overall opinion as:		
	'Good'	'Okay'	'Poor'	'Good'	'Okay'	'Poor'	'Good'	'Okay'	'Poor'	'Good'	'Okay'	'Poor'
Abri-san	40	26	34	33	37	31	42	39	19	20	48	31
Anamini	58	22	20	44	42	15	64	19	17	41	41	17
Attends 3	28	30	42	20	37	43	28	46	26	14	37	49
Celanorm	28	43	30	40	32	28	39	25	16	34	39	27
Contisure	39	44	17	45	40	15	50	39	12	38	46	16
Indasec	55	23	21	38	45	17	55	40	4	47	41	12
Microflex	49	35	16	38	46	17	52	36	12	40	48	12
Molimed	39	39	22	33	31	35	47	43	11	25	41	33
Prevail	53	29	18	45	27	27	58	33	9	50	24	26
Tena lady	52	37	12	56	31	13	56	35	10	57	31	12
Tender	45	41	14	41	37	22	54	34	12	38	40	22
Vlesi-well	33	41	27	26	52	22	47	39	14	30	44	26

Shaded areas indicate that a statistically significant difference was found between this product and at least one other product (P<0.001)

### References

1. Hunskaar et al Epidemiology and natural history of urinary incontinence, IN ed Abrams, P., Cardozo, L., Khoury, S., Wein, A. Incontinence 2<sup>nd</sup> edition Health publication Ltd 2002
2. Armitage, P., Berry, G., Statistical methods in medical research. 3<sup>rd</sup> edition Blackwell Science Oxford 1994
3. *Anonymised* A multi-centre comparative evaluation: disposable pads for women with light incontinence Wound, Ostomy and Continence Nursing In Press 2003