REGAINE FOR MEN EXTRA STRENGTH SCALP FOAM 5% W/W CUTANEOUS FOAM
PL 15513/0134 & 0366

UKPAR

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REGAINE FOR MEN EXTRA STRENGTH SCALP FOAM 5% W/W CUTANEOUS FOAM
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LAY SUMMARY

On 7th October 2010 and 30th November 2010, the MHRA granted a licence for the medicinal product Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam (PL 15513/0134 & 0366, respectively). These are Pharmacy (P) and General Sales Licence (GSL) products, respectively, to treat hereditary hair loss in men aged from 18-49 years. They contain minoxidil, which is thought to work by aiding the blood flow to the hair follicles of the scalp.

No new or unexpected safety concerns arose from this application and it was, therefore, judged that the benefits of taking Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam outweigh the risks, hence Marketing Authorisations have been granted.
SCIENTIFIC DISCUSSION

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INTRODUCTION

Based on the review of the data on quality, safety and efficacy, the UK granted marketing authorisations for the medicinal product Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam (PL 15513/0134 & 0366) to McNeil Products Limited on 7th October 2010 and 30th November 2010, respectively. These products are Pharmacy (P) and General Sales Licence (GSL) products, respectively, and are indicated for the treatment of alopecia androgenetica in men.

These applications for Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam were submitted as a full-dossier application, according to Article 8.3 of Directive 2001/83/EC.

Androgenetic alopecia is the most prevalent type of hair loss in males, comprising more than 90% of all hair growth dysfunctions. In this genetically determined disease, the influence of androgens leads to a characteristic appearance, which results in reduced scalp coverage. In the sensitive areas of the scalp the number of hair follicles in the telogen or resting phase increases, and miniaturization of the hair follicle occurs. In the following hair cycles, the anagen or growth phases become shorter and shorter. The subsequent hairs become shorter and thinner, and eventually only very fine, colourless vellus hairs are produced. Clinically, this results in less visible scalp coverage.

The onset of androgenetic alopecia in males is characterized by a receding frontal line in an M-shaped pattern. Subsequently, thinning of hair in the vertex region starts. In the more extensive forms of androgenetic alopecia, hair remains only in a horseshoe-shaped marginal area behind and at the sides (parieto-occipital circle of hair).

Minoxidil stimulates hair regrowth and has previously been available as a topical solution. The proposed foam formulation with 5% minoxidil in an alcohol-based vehicle has been developed to address negative feedback concerning the topical solution, such as local irritation and displeasing product aesthetics. Moreover, the foam formulation will more readily remain adherent to the intended area of application on the scalp.

The MHRA has been assured that acceptable standards of Good Manufacturing Practice (GMP) are in place at all sites responsible for the manufacture and assembly of this product.

No new non-clinical data have been submitted with these applications, which is satisfactory given that minoxidil is a well-known active substance with a well-established safety profile.

Data from four new clinical studies have been submitted with these applications. All studies were performed in accordance with current Good Clinical Practice (GCP).
**PHARMACEUTICAL ASSESSMENT**

**DRUG SUBSTANCE**

**Minoxidil**

INN: Minoxidil  
Chemical name: (i) 6-(Piperidin-1-yl)pyrimidine-2,4-diamine 3-oxide  
(ii) 2,4-Diamino-6-piperidinopyrimidine 3-oxide  

Structure:

![Minoxidil Structure](image)

Molecular formula: C₉H₁₅N₅O  
Molecular weight: 209.25  
Appearance: A white to almost white crystalline powder.

Minoxidil is the subject of a European Pharmacopoeia monograph.

All aspects of the manufacture and control of the drug substance minoxidil are covered by a European Directorate for the Quality of Medicines (EDQM) Certificate of Suitability.

**DRUG PRODUCT**

**Other ingredients**

Other ingredients consist of pharmaceutical excipients, namely ethanol anhydrous, purified water, butylated hydroxytoluene (E321), lactic acid, citric acid anhydrous, glycerol, cetyl alcohol, stearyl alcohol, polysorbate 60, propellant (propane/n-butane/iso-butane) and nitrogen. All excipients used comply with their respective European Pharmacopoeia monograph, with the exception of the propellant (which is controlled to a suitable National Formulary specification). Satisfactory certificates of analysis have been provided for all excipients.

None of the excipients use materials sourced from animal or human origins. None of the excipients are sourced from genetically modified organisms.

**Product development**

The objective of the pharmaceutical development programme was to produce a topical foam containing 5% minoxidil that addressed the negative feedback obtained from the minoxidil topical solution. The applicant has provided a suitable product development section. Justifications for the use and amounts of each excipient have been provided and are valid.
Manufacture
A description and flow-chart of the manufacturing method has been provided.

In-process controls are satisfactory based on process validation data and controls on the finished product. Process validation has been carried out on batches of finished product and the results appear satisfactory.

Finished product specification
The finished product specification is satisfactory. Test methods have been described and have been adequately validated, as appropriate. Batch data have been provided and comply with the release specification. Certificates of analysis for all working standards used have been provided and are satisfactory.

Container-Closure System
The primary packaging is a lined aluminium pressurised can, with a child-resistant plastic or polypropylene overcap. Each can contains 60 grams of product. Both product licences have a pack size of one can of finished product. PL 15513/0134 also has an additional pack size of three cans of product.

The marketing authorisation holder has stated that not all pack sizes may be marketed. However, they have committed to submitting mock-ups of any packaging to the relevant regulatory authorities for approval before marketing any pack size.

Specifications and Certificates of Analysis for all packaging have been provided. These are satisfactory. The primary packaging has been shown to comply with current EU regulations regarding the contact of materials with foodstuff.

Stability
Finished product stability studies have been conducted in accordance with current guidelines. Based on the results, a shelf-life of 2 years has been set, with the storage instructions “Store below 25°C”. A further note has been made stating that “Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam is extremely flammable.”

Bioequivalence
No bioequivalence studies were submitted, which is appropriate as these products were submitted under Article 8.3, full dossier applications.

ADMINISTRATIVE
Expert Report
A pharmaceutical expert report has been written by a suitably qualified person and is satisfactory.

Summary of Product Characteristics (SmPC)
This is pharmaceutically satisfactory.

Labelling
These are pharmaceutically satisfactory.
Patient Information Leaflet (PIL)
This is pharmaceutically satisfactory.

A suitable justification for bridging the user testing results for Regaine for Men Extra Strength 5% Solution to this application has been provided. The results of the PIL user testing indicate that the PIL is well-structured and organised, easy to understand and written in a comprehensive manner. The test shows that the patients/users are able to act upon the information that it contains.

MAA Form
This is pharmaceutically satisfactory.

Conclusion
It is recommended that Marketing Authorisations are granted for these applications.
PRECLINICAL ASSESSMENT

No new preclinical data have been submitted with these applications and none are required. Minoxidil is a well-known active substance with a well-established safety profile.

The preclinical expert report has been written by an appropriately qualified person and is a suitable summary of the data submitted.

A suitable justification has been provided for non-submission of an Environmental Risk Assessment.

It is recommended that Marketing Authorisations are granted for these applications.
CLINICAL ASSESSMENT

CLINICAL PHARMACOLOGY
Two new pharmacokinetic studies were submitted with these applications, summaries of these are presented below.

A randomised, open-label, single-centre, three-period, three-treatment, repeat-dose crossover study to compare the steady-state serum minoxidil levels and levels after termination of treatment in subjects given topical doses of 1, 2 and 3 grams of 5% minoxidil foam.

Each subject was randomised to a strength of minoxidil foam for each period. Treatment was administered twice daily for 5 days, and once on the 6th day (making 11 applications in total). Each treatment period was separated by a 7-day washout period.

The systemic absorption data for the 1, 2 and 3 gram 5% minoxidil foam is presented below. These show that there is a linear increase in the mean area under the curve (AUC) with increasing dose.

![Graph showing linear increase in Mean AUC with topical dose](image)

The mean steady-state serum minoxidil concentrations are presented below. Statistically significant pair-wise differences were observed in the AUC and C_{max} between treatments, with the 3 grams being greater than those for both the 1 gram and 2 gram, and the 2 gram being greater than the 1 gram.
Although there was a pair-wise statistical difference among the three doses in the minoxidil blood concentrations, the results are of minimal clinical significance. $C_{\text{max}}$ for exaggerated use of 5% minoxidil topical foam for a total dose of 4.0 g/day is slightly greater than the $C_{\text{max}}$ for the approved 5% minoxidil topical solution used at a total dose of 2 ml/day as seen in other pharmacokinetic studies. The exaggerated use of the foam preparation, up to three times the recommended dose, does not produce blood levels associated with systemic effects. It is expected that the minoxidil user could safely use the new foam product with a non-metered-dose apparatus, even if up to three times the recommended dose is inadvertently applied.

A randomised, open-label, single-centre, three-period, three-treatment, repeat-dose crossover study to compare the steady-state serum minoxidil levels and levels after termination of treatment in subjects administered formulations of the 5%/2% foam/solution (for male/female volunteers) versus 5% minoxidil topical solution.

All male volunteers received 1ml of one of two formulations of 5% minoxidil foam, or 1ml of the minoxidil topical solution twice daily. All female volunteers received 1ml of one of two formulations of 5% minoxidil foam once daily, or 1ml of 2% minoxidil topical solution twice daily. Blood samples were taken for 6 days, with a 7-day washout period between treatment periods.
The steady-state pharmacokinetic parameters and serum minoxidil concentrations in male subjects are presented below. As this product is indicated in males only, the results for female subjects are not considered.

<table>
<thead>
<tr>
<th></th>
<th>5% MTS (N = 29)</th>
<th>5% MTF #1 (with glycerine) (N = 31)</th>
<th>5% MTF #2 (with propylene glycol) (N = 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUC [ng·h/ml]</td>
<td>18.71 (13.64)</td>
<td>8.81 (5.59)</td>
<td>10.83 (9.02)</td>
</tr>
<tr>
<td>C_{max} [ng/ml]</td>
<td>2.13 (1.54)</td>
<td>1.11 (0.71)</td>
<td>1.64 (1.65)</td>
</tr>
<tr>
<td>t_{max} [h]</td>
<td>3.79 (4.35)</td>
<td>5.42 (4.54)</td>
<td>4.13 (4.50)</td>
</tr>
</tbody>
</table>

The relative absorption rate of the 5% Foam with glycerin compared to 5% minoxidil topical solution in terms of AUC was 49.0%, with a 90% confidence interval of 39.3 to 61.0%. The relative absorption rate of the 5% Foam with glycerin compared to 5% minoxidil topical solution, in terms of C_{max}, was 58.9%, with a 90% confidence interval of 46.8 to 74.1%.

The relative absorption rate of the 5% Foam with propylene glycol compared to 5% minoxidil topical solution in terms of AUC was 55.6%, with a 90% confidence interval of 44.5 to 69.3%. The relative absorption rate of the 5% Foam with propylene glycol compared to 5% MTS in terms of C_{max} was 71.8%, with a 90% confidence interval of 57.0 to 90.4%.

The 5% Foam with glycerin had a somewhat lower absorption rate than that of 5% Foam with propylene glycol. The ratios of Foam 5% with glycerin and with propylene glycol are 88.1% and 82.0% for AUC and C_{max}, respectively.

It was concluded that serum minoxidil levels for either foam composition were either similar to or lower than that for the 5% topical solution.
Efficacy
One new efficacy study was submitted with these applications.

A randomised, double-blind, multi-centre, placebo-controlled study to evaluate the efficacy and safety of 5% minoxidil foam in the treatment of male androgenic alopecia.

Patients received either 5% minoxidil topical foam or placebo foam twice daily for 16 weeks (once in the morning and once at night). Treatment was to the scalp, in the hair loss area of the vertex, using an amount no more than half a capful (approximately 1g of product).

The primary efficacy endpoints were: (1) mean change in non-vellus hair count in the target region between Baseline and Week 16, as determined by a validated computer-assisted dot mapping technique and (2) subject rating of treatment benefit, via use of global photographs and subject questionnaire, assessed as overall improvement from Baseline.

Secondary efficacy endpoints included (1) scores from expert panel review (EPR) of hair regrowth when comparing global photographs obtained at Baseline with photographs obtained at Week 16 and (2) the percent change from Baseline in non-vellus hair counts within a pre-specified area of clipped hair.

The results for the primary endpoint, change in non vellus hair count, as determined by a validated computer-assisted dot mapping technique, is presented below for the intention-to-treat group (including statistical calculations using the last-observation-carried-forward [LOCF] method).

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Placebo</th>
<th>5% Topical Minoxidil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hair Count</td>
<td>Change</td>
</tr>
<tr>
<td>Baseline (Visit 2)</td>
<td>N: 172</td>
<td>180</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>168.9 (48.45)</td>
<td>170.8 (50.40)</td>
</tr>
<tr>
<td>Median</td>
<td>167.5</td>
<td>167.0</td>
</tr>
<tr>
<td>Range (Min – Max)</td>
<td>69.0 – 324.0</td>
<td>79.0 – 329.0</td>
</tr>
<tr>
<td>Week 16 Final (Visit 7)</td>
<td>N: 149</td>
<td>163</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>174.4 (49.78)</td>
<td>190.8 (55.70)</td>
</tr>
<tr>
<td>Median</td>
<td>174.0</td>
<td>190.0</td>
</tr>
<tr>
<td>Range (Min – Max)</td>
<td>80.0 – 298.0</td>
<td>76.0 – 365.0</td>
</tr>
</tbody>
</table>

For the change in non-vellus hair count, the results showed a significant improvement in the treatment group compared to the placebo group.
Analyses of both these variable showed 5% minoxidil foam to be statistically superior to placebo foam. Hair count analysis of the intent-to-treat (ITT) population showed statistically significant differences in the adjusted mean change from Baseline at all three post-Baseline assessments (Week 8, 16.0 hairs/cm² for minoxidil vs 4.9 hairs/cm² for placebo; Week 12, 19.9 hairs/cm² for minoxidil vs 4.5 hairs/cm² for placebo; and Week 16, 21.0 hairs/cm² for minoxidil vs 4.3 hairs/cm² for placebo) (P<0.0001 at each visit). The results for the ITT analyses were confirmed by analyses based on the per protocol (PP) population at Week 16. Analyses of the subject ratings of treatment benefit at Week 16/early termination in the ITT population showed significantly better scores for the 5% minoxidil foam treatment group (mean 1.4 points) than for the placebo foam group (mean 0.5 points (P<0.0001). This was confirmed by analysis based on the PP population (P<0.0001).
The change in mean subject ratings of treatment benefit from baseline is presented below for the ITT population.

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Placebo</th>
<th>5% Topical Minoxidil</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>162</td>
<td>170</td>
</tr>
<tr>
<td>Mean</td>
<td>0.5</td>
<td>1.4</td>
</tr>
<tr>
<td>SD</td>
<td>1.24</td>
<td>1.23</td>
</tr>
<tr>
<td>Median</td>
<td>0.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Min - Max</td>
<td>-2.0 - 3.0</td>
<td>-2.0 - 3.0</td>
</tr>
<tr>
<td>Adjusted Mean (SE)</td>
<td>0.5 (0.1)</td>
<td>1.4 (0.1)</td>
</tr>
<tr>
<td>Difference (5% Topical minoxidil foam – placebo)</td>
<td>0.9</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>P-value</td>
<td></td>
<td>0.6 - 1.2</td>
</tr>
</tbody>
</table>

Reference: Section 14, Table 14.2.4; Appendix 16.2.5.3.
Root MSE = 1.205
P-value is from the ANCOVA model with treatment, center, and age as fixed effects.

The primary efficacy findings were supported by the secondary efficacy variables, the score from expert panel review of hair regrowth as judged from the global photographs obtained at Baseline and Week 16 and the percent change from baseline in non-vellus hair counts within a pre-specified area of clipped hair. The mean score from the expert panel was 0.5 points for the 5% minoxidil foam group, compared with 0.0 points for the placebo foam group (P<0.0001), and the adjusted means for the two treatment groups were 0.5 points and 0.1 points, respectively. Analyses of the percent change in hair counts showed 5% minoxidil foam to be statistically superior to placebo foam. Hair count analysis of the intent-to-treat (ITT) population showed statistically significant differences in the adjusted mean percent change from Baseline at all three post-Baseline assessments (Week 8, 10.4% for minoxidil vs 3.4% for
placebo; Week 12, 13.0% for minoxidil vs 3.3% for placebo; and Week 16, 13.7% for minoxidil vs 3.3% for placebo; \( P<0.0001 \) at each visit).

SAFETY
Safety of minoxidil 5% foam was evaluated during the clinical efficacy study discussed above through visual assessments, vital signs, adverse events and laboratory tests from baseline to Week 16. This study was then extended to a 1 year open-label study, with clinical safety assessments (including weight, blood pressure, pulse and adverse events) collected every 8 weeks. Laboratory tests were obtained at the final visit.

No deaths occurred during the study. Three subjects treated with placebo and two subjects treated with minoxidil experienced serious adverse events during the double-blind phase. Furthermore, three subjects experienced serious adverse events during the open-label phase. None of the serious adverse events during the double-blind or open-label phase were considered to be related to study treatment.

The incidence of drug-related adverse events was low overall during the double-blind phase. Twelve placebo subjects (7.0%) and 12 subjects (6.7%) in the 5% minoxidil foam group experienced drug-related adverse events. Only headache (two placebo subjects [1.2%], three minoxidil subjects [1.7%]); pruritus (no placebo subjects [0%], two minoxidil subjects [1.1%]); rash (no placebo subjects [0%], two minoxidil subjects [1.1%]); and pain (two placebo subjects [1.2%], one minoxidil subject [<1%]) occurred in more than 1% of subjects in either treatment group. The drug-related AEs occurring in more than 1% of subjects in either treatment group were primarily minor conditions related to pain or to application of study drug to the skin. No drug-related adverse events occurred in more than five subjects overall.

The overall incidence of drug-related adverse events was similar in the extension phase as in the double-blind phase. In the open-label extension phase, drug-related adverse events occurred in 10 subjects (7% of the study population) overall. The only specific drug-related adverse events to occur in more than one subject in the open-label extension phase were headache (three subjects) and hypertension (two subjects). The drug-related adverse events reported in the open-label extension phase were consistent with those reported during the double-blind phase.

No clinically significant changes in laboratory tests or vital signs were observed.

In addition to the safety data collected during the clinical efficacy study above, a further skin sensitisation study was performed. The primary objective of this study was to evaluate the safety of the test materials as evidenced by the potential to induce contact sensitization following repeated application to the skin of human subjects. The secondary objective of this study was to evaluate the safety of the test materials as evidenced by cumulative irritation during the induction phase and the report of adverse events during the study.

This study was a typical repeat-insult sensitization study, with test and reference patches applied three times per week for 3 weeks, followed by an exposure-free period of approximately 2 weeks, and then a re-application of the test and reference patches. The application sites were then assessed for sensitization reactions, and/or
irritation, for several days. The study design involved continuous contact time during the induction/irritation phase and a 48-hour contact time during the challenge phase of the study. Each subject received four patches at each application timepoint. Subjects with responses possibly indicative of contact sensitization participated in a re-challenge to confirm or deny the possibility of contact sensitization. The re-challenge consisted of one 48-hour patch application with assessments for sensitization and/or irritation reactions 15 minutes and 48 hours post removal. In addition, four days of twice daily open applications of the clinical test materials with daily assessments for sensitization and/or irritation reactions were done.

Irritation was assessed via visual assessments throughout the induction and challenge phase. Sensitization potential was assessed for subjects that received nine induction applications, with at least eight evaluations and one challenge application with two subsequent evaluations. Adverse events were reported for all subjects that received at least one application of clinical test materials. There were no statistical methods done to determine the primary variable of interest. Determination of dermal sensitization potential was based on specific scoring criteria from the challenge phase, in conjunction with assessing the induction scores, and re-challenge, if considered necessary.

Under the exaggerated closed-patch conditions of the study, the clinical trial materials were irritating. With semi-occluded patch conditions, the irritation was significantly lessened, and was considered non-irritating. The irritancy observed under the exaggerated test conditions is likely not indicative of normal use conditions. The questionable responses observed in the challenge phase to the Minoxidil 5% Foam Floral fragrance and the vehicle were similar. Due to the nature of the responses, re-challenge was conducted. Re-challenge results, both under semi-occluded patch conditions on the lower back and open applications to the forearms did not confirm the questionable responses observed in challenge. The re-challenge responses were not consistent with allergic contact dermatitis and, therefore, it is likely that the challenge responses were of an irritant nature.

The results of this exploratory study suggest that minoxidil 5% foam formulation has a low potential for irritability/sensitisation. This was also shown by the clinical efficacy study, during both the double-blind and open-label periods.

EXPERT REPORTS
A clinical expert report has been written by a suitably qualified physician and is a satisfactory summary of the clinical dossier.

PATIENT INFORMATION LEAFLET (PIL)
This is suitable for a product of this nature and in-line with current European guidelines.

LABELLING
These are satisfactory and in-line with current European guidelines.

APPLICATION FORMS (MAA)
These are satisfactory.
SUMMARY OF PRODUCT CHARACTERISTICS (SmPC)
This is suitable for a product of this nature and in-line with current European guidelines.

PHARMACOVIGILANCE SYSTEM AND RISK MANAGEMENT PLAN
The pharmacovigilance system, as described by the applicant, fulfils the requirements and provides adequate evidence that the applicant has the services of a qualified person responsible for pharmacovigilance, and has the necessary means for the notification of any adverse reaction suspected of occurring either in the Community or in a third country.

A suitable justification has been provided for not submitting a risk management plan for these products.

MEDICAL CONCLUSION
The grant of marketing authorisations is recommended for these applications.
OVERALL CONCLUSION AND BENEFIT/RISK ASSESSMENT

QUALITY
The important quality characteristics of Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam are well-defined and controlled. The specifications and batch analytical results indicate consistency from batch to batch. There are no outstanding quality issues that would have a negative impact on the benefit/risk balance.

PRECLINICAL
No new preclinical data were submitted and none are required for applications of this type.

EFFICACY
Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam has been shown to significantly increase hair count compared with placebo foam.

No new or unexpected safety concerns arise from these applications.

The SmPC, PIL and labelling are satisfactory and consistent with that for similar products that are currently licensed.

BENEFIT/RISK ASSESSMENT
The quality of the products is acceptable, and no new preclinical or clinical safety concerns have been identified. Evidence of efficacy has been provided. Extensive clinical experience with minoxidil is considered to have demonstrated the therapeutic value of the compound. The risk benefit is, therefore, considered to be positive.
**REGAINE FOR MEN EXTRA STRENGTH SCALP FOAM 5% W/W CUTANEOUS FOAM**  
**PL 15513/0134**

**STEPS TAKEN FOR ASSESSMENT**

<table>
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<th>Description</th>
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<tr>
<td>1</td>
<td>The MHRA received the marketing authorisation applications on 30th June 2009</td>
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<tr>
<td>2</td>
<td>Following standard checks and communication with the applicant the MHRA considered the applications valid on 2nd July 2009</td>
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<tr>
<td>3</td>
<td>Following assessment of the applications, the MHRA requested further information relating to the pharmaceutical 8th November 2009, and clinical dossiers on 8th December 2009 and 25th May 2010</td>
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<tr>
<td>4</td>
<td>The applicant responded to the MHRA’s requests, providing further information relating to the pharmaceutical dossier on 10th May 2010 and 29th June 2010, and further information relating to the clinical dossier on 4th February 2010 and 30th July 2010</td>
</tr>
<tr>
<td>5</td>
<td>The applications were determined on 7th October 2010</td>
</tr>
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</table>
REGAINE FOR MEN EXTRA STRENGTH SCALP FOAM 5% W/W CUTANEOUS FOAM
PL 15513/0134

STEPS TAKEN AFTER AUTHORISATION - SUMMARY

<table>
<thead>
<tr>
<th>Date submitted</th>
<th>Application type</th>
<th>Scope</th>
<th>Outcome</th>
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</table>
1 NAME OF THE MEDICINAL PRODUCT
Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam

2 QUALITATIVE AND QUANTITATIVE COMPOSITION
Minoxidil 50 mg/g (5% w/w)
Contains butylhydroxytoluene (BHT), stearyl alcohol and cetyl alcohol.
For full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM
Cutaneous foam
White to off-white foam

4 CLINICAL PARTICULARS
4.1 Therapeutic indications
Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam is indicated for the
treatment of alopecia androgenetica in men.

4.2 Posology and method of administration
Men aged 18–49:
Hair and scalp should be thoroughly dry prior to topical application of Regaine for Men Extra
Strength Scalp Foam 5% w/w Cutaneous Foam. A dose of 1 g (equivalent to the volume of
half a capful) Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam should
be applied to the total affected areas of the scalp twice daily. The total daily dosage should not
exceed 2 g.

Hold can upside down and press nozzle to dispense foam onto the hand. Spread with fingertips
over entire bald area. Hands should be washed thoroughly after application.

It may take twice-daily applications for 8 weeks or more before evidence of hair growth can
be expected. Users should discontinue treatment if there is no improvement seen after 16
weeks.

If hair regrowth occurs, twice daily applications of Regaine for Men Extra Strength Scalp
Foam 5% w/w Cutaneous Foam are necessary for continued hair growth.

Clinical Trials have not investigated the efficacy of Regaine for Men Extra Strength Scalp
Foam 5% w/w Cutaneous Foam beyond 16 weeks.

Children and men over 49 years
Not recommended. The safety and effectiveness of Regaine for Men Extra Strength Scalp
Foam 5% w/w Cutaneous Foam in users aged under 18 or over 49 has not been established.

4.3 Contraindications
Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam is contraindicated:
- in women
- in users with a history of sensitivity to Minoxidil or any of the other ingredients
- in users with treated or untreated hypertension
- in users with any scalp abnormality (including psoriasis and sunburn)
- in users with a shaved scalp
- if occlusive dressings or other topical medical preparations are being used.

4.4 Special warnings and precautions for use
Before using Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam, the user
should determine that the scalp is normal and healthy.

Minoxidil is not indicated when there is no family history of hair loss, hair loss is sudden
and/or patchy, hair loss is due to childbirth, or the reason for hair loss is unknown.

The patient should stop using Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous
Foam and see a doctor if hypotension is detected or if the patient is experiencing chest pain,
rapid heartbeat, faintness or dizziness, sudden unexplained weight gain, swollen hands or feet or persistent redness.

Patients with known cardiovascular disease or cardiac arrhythmia should contact a physician before using Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam.

Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam is for external use only. Do not apply to areas of the body other than the scalp.

Hands should be washed thoroughly after applying the foam.

Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam contains ethanol (alcohol), which will cause burning and irritation of the eye. In the event of accidental contact with sensitive surfaces (eye, abraded skin and mucous membranes) the area should be bathed with large amounts of cool tap water.

Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam also contains butylated hydroxytoluene, which may cause local skin reactions (e.g. contact dermatitis), or irritation to the eyes or mucous membranes, and cetyl and stearyl alcohol, which may cause local skin reactions (e.g. contact dermatitis)

Some patients have experienced changes in hair colour and/or texture with Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam use.

Some consumers reported increased hair shedding upon initiation of therapy with Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam. This is most likely due to minoxidil’s action of shifting hairs from the resting telogen phase to the growing anagen phase (old hairs fall out as new hairs grow in their place). This temporary increase in hair shedding generally occurs two to six weeks after beginning treatment and subsides within a couple of weeks. If shedding persists (> 2 weeks), users should stop using Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam and consult their doctor.

Users should be aware that, whilst extensive use of Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam has not revealed evidence that sufficient minoxidil is absorbed to have systemic effects, greater absorption because of misuse, individual variability, unusual sensitivity or decreased integrity of the epidermal barrier caused by inflammation or disease processes in the skin (e.g. excoriations of the scalp, or scalp psoriasis) could lead, at least theoretically, to systemic effects.

4.5 Interaction with other medicinal products and other forms of interaction

Topical drugs, such as tretinoin or dithranol, which alter the stratum corneum barrier, could result in increased absorption of minoxidil if applied concurrently. Although it has not been demonstrated clinically, there exists the theoretical possibility of absorbed minoxidil potentiating orthostatic hypotension caused by peripheral vasodilators.

Betamethasone dipropionate increases local tissue concentrations of minoxidil and decreases systemic minoxidil absorption.

4.6 Pregnancy and lactation

Systemically absorbed minoxidil is secreted in human milk.

There are no adequate and well-controlled studies in pregnant women.

Animal studies have shown a risk to the foetus at exposure levels that are very high compared to those intended for human exposure. A low, albeit remote, risk of foetal harm is possible in humans.

Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam should not be used during pregnancy or lactation.
4.7 Effects on ability to drive and use machines
Based on the pharmacodynamic and overall safety profile of minoxidil, it is not expected that Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam would interfere with the ability to drive or operate machinery.

4.8 Undesirable effects
For the assessment of undesirable effects the following frequencies apply:

Very common ($\geq 1/10$); common ($\geq 1/100, <1/10$); uncommon ($\geq 1/1,000, <1/100$); rare ($\geq 1/10,000, <1/1,000$); very rare ($<1/10,000$), not known (cannot be estimated from the available data).

The following adverse events were associated with the use of minoxidil solution (2% and 5% combined) in males and females, at an incidence greater than 1 %, and greater than placebo in seven placebo-controlled clinical trials.

**Very Common:**
Neurological: headache

**Common:**
Respiratory: dyspnoea
Dermatological: pruritus, hypertrichosis, acneform rash, dermatitis, inflammatory skin disorder
Musculoskeletal: musculoskeletal pain
Metabolic/Nutritional: peripheral oedema
Psychiatric: depression
Miscellaneous: pain

**Clinical Trial with Minoxidil Foam**
The following adverse events were associated with the use of 5% minoxidil foam in males, at an incidence greater than 1 %, and greater than placebo in one placebo-controlled clinical trial.

**Common:** Body as a Whole: headache
Skin: pruritus, rash
Cardiovascular: hypertension

**Post Marketing Experience - Minoxidil Solution**
The following additional adverse events which have been observed with the application of topical minoxidil solutions during post-marketing use might also be relevant for topical minoxidil foam: irritation at the application site, dry skin, skin exfoliation, temporary hair loss, application site erythema, contact dermatitis or hypotension.

Users should stop using Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam if they experience chest-pain, tachycardia, faintness, dizziness, sudden unexplained weight gain, swollen hands or feet or persistent redness or irritation of the scalp.

4.9 Overdose
Increased systemic absorption of minoxidil may potentially occur if higher-than-recommended doses of Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam are applied to larger surface areas of the body or areas other than the scalp.

Because of the concentration of minoxidil in Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam, accidental ingestion has the potential of producing systemic effects related to the pharmacological action of the drug (2 g of Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam contains 100 mg minoxidil; the maximum recommended adult dose for oral minoxidil administration in the treatment of hypertension). Signs and symptoms of minoxidil overdosage would primarily be cardiovascular effects associated with sodium and water retention, and tachycardia, hypotension and dizziness can also occur. Fluid retention can be managed with appropriate diuretic therapy. Clinically significant tachycardia can be controlled by administration of a beta-adrenergic blocking agent.
Treatment
Treatment of minoxidil overdosage should be symptomatic and supportive.

5 PHARMACOLOGICAL PROPERTIES
5.1 Pharmacodynamic properties
Pharmacotherapeutic group: Other dermatologicals, ATC code: D11AX.

Minoxidil stimulates hair growth in persons with early and moderate stages of hereditary hair loss (alopecia androgenetica). This hair loss appears in men as a receding hairline and balding in the vertex area. The exact mechanism of action of minoxidil for topical treatment of alopecia is not fully understood, but minoxidil can reverse the hair loss process of androgenetic alopecia by the following means:
- increasing the diameter of the hair shaft
- stimulating anagen growth
- prolonging the anagen phase
- stimulating anagen recovery from the telegen phase

As a peripheral vasodilator minoxidil enhances microcirculation to hair follicles. The Vascular Endothelial Growth Factor (VEGF) is stimulated by minoxidil and VEGF is presumably responsible for the increased capillary fenestration, indicative of a high metabolic activity, observed during the anagen phase.

The efficacy of 5% minoxidil foam has been assessed in a Phase 3 clinical trial conducted over a 16-week treatment period. In this study 5% minoxidil foam was compared to the product vehicle without the minoxidil active ingredient.

The primary efficacy endpoints were a) mean change in non-vellus hair count within the target region between Baseline and Week 16, as determined by validated computer-assisted dot-mapping technique; and b) subject rating of treatment benefit via use of global photographs of the vertex region, assessed as an overall improvement from baseline, collected on a subject questionnaire.

The active treatment showed a statistically significant greater increase in hair count than the vehicle foam group (21.0 versus 4.3 hairs cm$^2$) at week 16. A clear difference between treatment groups was already evident at week 8, increasing at week 12 and again at week 16. The subject’s rating of treatment benefit was statistically significantly better for the 5% minoxidil foam treatment group than placebo (1.4 vs 0.5) at week 16.

The secondary efficacy endpoints were a) expert panel review (EPR) of hair regrowth when comparing global photographs obtained at baseline with photographs obtained at Week 16 and b) percent change from baseline in non-vellus hair counts within a pre-specified area of clipped hair.

The 5% minoxidil foam group showed a better score in the expert panel review (EPR) than the placebo foam group (adjusted mean 0.5 vs 0.1, p<0.0001).

At weeks 8, 12 and 16, the difference in adjusted means for percent change in non-vellus hair counts between vehicle foam and minoxidil foam were statistically significant (p<0.0001 at all 3 visits).

Regaine Foam Data: Mean change in non-vellus hair count in reference 1cm$^2$ area of scalp compared with baseline

<table>
<thead>
<tr>
<th></th>
<th>Regaine for Men Extra Strength Foam (n=180)</th>
<th>Placebo (n=172)</th>
<th>Difference (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline haircount</td>
<td>170.8</td>
<td>168.9</td>
<td></td>
</tr>
<tr>
<td>Mean change from baseline</td>
<td></td>
<td>Mean change from baseline</td>
<td></td>
</tr>
<tr>
<td>8 weeks</td>
<td>16.0</td>
<td>4.9</td>
<td>11.1 (&lt;0.0001)</td>
</tr>
<tr>
<td>12 weeks</td>
<td>19.9</td>
<td>4.5</td>
<td>15.4 (&lt;0.0001)</td>
</tr>
<tr>
<td>16 weeks</td>
<td>21.0</td>
<td>4.3</td>
<td>16.7 (&lt;0.0001)</td>
</tr>
</tbody>
</table>
5.2 Pharmacokinetic properties
The failure to detect evidence of systemic effects during treatment with Regaine Foam reflects the poor absorption of topically applied minoxidil from normal intact skin. Systemic absorption of minoxidil from topically applied solution ranges between 1% and 2% of the total applied dose.

The systemic absorption of minoxidil from a 5% foam formulation has been estimated in a pharmacokinetic study in subjects with androgenetic alopecia, which included 5% topical solution as a comparator. This demonstrated that in men, the systemic absorption of minoxidil from twice daily application of 5% minoxidil foam was about half of that observed with 5% minoxidil solution. The mean steady state AUC(0-12 hr) and Cmax for 5% minoxidil foam, 8.81 ng·hr/mL and 1.11 ng/mL, respectively, were both approximately 50% of AUC (0-12 hr) and Cmax of the 5% solution, 18.71 ng·hr/mL and 2.13 ng/mL, respectively. The time to maximum minoxidil concentration (Tmax) for the 5% foam, 5.42 hr, was similar to Tmax for the 5% solution, 5.79 hr.

There is some evidence from in vitro studies that minoxidil reversibly binds to human plasma proteins. However, since only 1 – 2% of topically applied minoxidil is absorbed, the extent of plasma protein binding occurring in vivo after topical application would be clinically insignificant. The volume of distribution of minoxidil after intravenous administration has been estimated at 70 litres.

Approximately 60% minoxidil absorbed after topical application is metabolised to minoxidil glucuronide, primarily in the liver. Minoxidil and its metabolites are excreted almost entirely in the urine, with a very minor degree of elimination via the faeces. Following cessation of dosing, approximately 95% of topically applied minoxidil will be eliminated within four days.

5.3 Preclinical safety data
Mutagenicity
Minoxidil showed no evidence of mutagenic/genotoxic potential in a number of in vitro and in vivo assays.

Carcinogenicity
A high incidence of hormone-mediated tumours was observed in mice and rats. These tumours are due to the secondary hormonal (hyperprolactinemia) effects observed only in the rodents at extremely high doses by a mechanism similar to that seen with reserpine. Application of topical minoxidil has not demonstrated any effect on hormonal status in women. Therefore, hormonally mediated tumour promotion by minoxidil does not represent a carcinogenic risk to humans.

Teratogenicity
Animal reproduction toxicity studies in rats and rabbits have shown signs of maternal toxicity and a risk to the foetus at exposure levels that are very high compared to those, intended for human exposure. A low, albeit remote, risk of foetal harm is possible in humans.

Fertility
Minoxidil doses greater than 9 mg/kg (at least 25-fold human exposure) administered subcutaneously in rats were associated with reduced conception and implantation rates as well as reduction in the number of live pups.

6 PHARMACEUTICAL PARTICULARS
6.1 List of excipients
Ethanol, Anhydrous
Purified Water
Butylated hydroxytoluene (E321)
Lactic acid
Citric acid anhydrous
Glycerol
Cetyl alcohol
Stearyl Alcohol
UKPAR Regaine for Men Extra Strength Scalp Foam 5% w/w PL 15513/0134 & 0366

Polysorbate 60
Propane/n-Butane/Iso-butane (as propellant)
Nitrogen

6.2 Incompatibilities
Not applicable

6.3 Shelf life
2 years

6.4 Special precautions for storage
Store below 25°C.
Regaine for Men Extra Strength Scalp Foam 5% w/w Cutaneous Foam is extremely flammable.

6.5 Nature and contents of container
A lined aluminium pressurised container with a child-resistant plastic or polypropylene overcap, containing 60 gram of product.

   PL 15513/0134: Packs contain either one or three cans. Not all pack sizes may be marketed.
   PL 15513/0366: Pack size: 1

6.6 Special precautions for disposal
The contents are under pressure. The container should not be punctured or incinerated. The product is extremely flammable and exposure of the container and contents to naked flames should be avoided during use, storage and disposal. Do not expose to temperatures above 50°C.

Any unused product or waste material should be disposed of in accordance with the local requirements.

7 MARKETING AUTHORISATION HOLDER
McNeil Products Limited
Foundation Park
Roxborough Way
Maidenhead
Berkshire SL6 3UG
United Kingdom

8 MARKETING AUTHORISATION NUMBER(S)
PL 15513/0134
PL 15513/0366

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION
PL 15513/0134: 07/10/2010
PL 15513/0366: 30/11/2010

10 DATE OF REVISION OF THE TEXT
PL 15513/0134: 07/10/2010
PL 15513/0366: 30/11/2010
Regaine®
for MEN
EXTRA STRENGTH
Scalp Foam
5% w/w
Minoxidil
Cutaneous foam

PATIENT INFORMATION LEAFLET

Danger Extremely Flammable Aerosol
Regaine®
for MEN

EXTRA STRENGTH

Scalp Foam
Minoxidil 5%

- This medicine is used to treat hereditary hair loss in men aged 18 – 49 years.
- This product is for men only and should NOT be used by women.
- Do not apply to other areas of the body other than the scalp. If accidentally applied rinse thoroughly with plenty of water. See section 2 ►

Follow the instructions on how to use this product carefully. See section 3 ►

- This medicine is for external use only and should only be applied to your scalp. See section 3 ►
- This product is extremely flammable and should be used and disposed of carefully. See Special Warnings Relating to Regaine® for Men Extra Strength Scalp Foam. See section 2 ►

In this leaflet
1 What the medicine is for page 3
2 Before using this medicine page 4
3 How to use this medicine page 7
4 Possible side-effects page 9
5 Storing this medicine page 11
6 Further information page 11

Now read this whole leaflet carefully before you use this medicine. Keep the leaflet: you might need it again.
1 What the medicine is for

Regaine® for Men Extra Strength Scalp Foam is a medicine used to treat common hereditary hair loss in men aged 18-49 years, by preventing further hair loss and helping hair re-growth. It contains minoxidil, which is thought to work by aiding the blood flow to the hair follicles on your scalp.

- The medicine is only for use in men aged between 18 and 49 years.
- Regaine® for Men Extra Strength Scalp Foam works best in men with hair loss or thinning at the top of the scalp.
- Those who are younger, have been losing hair for a short period of time or have a small area of baldness are likely to experience the best results.
- You are unlikely to benefit from Regaine® for Men Extra Strength Scalp Foam if you have been bald for many years or have a large area of hair loss.

Hereditary hair loss is recognisable because:

- Of the pattern of hair loss (see diagrams).
- It starts gradually and progresses.
- You have a family history of hair loss.
- No other symptoms are present with your hair loss.
2 Before using this medicine

This medicine is suitable for most people but a few people should not use it. If you are in any doubt, talk to your doctor or pharmacist.

Do not use this medicine...

- If you are female.
- If you are under the age of 18 or over the age of 49.
- If you have had a bad reaction to minoxidil or any of the other ingredients.
- If you have hair loss caused by drug treatment.
- If you have total baldness or complete loss of all body hair.
- If the cause of your hair loss is unknown, or it is sudden and unexpected.
- If you have high blood pressure, even if it is not being treated.
- If you have any condition that affects your scalp, including sunburn and psoriasis.
- If you have a shaved scalp.
- If you are using creams, ointments or lotions used to treat scalp conditions, e.g. Dithranol – used to treat psoriasis.
- Tretinoin – used to treat acne or other skin disorders.
- Corticosteroids - a type of anti-inflammatory e.g. hydrocortisone, betamethasone dipropionate.
- If you have any kind of dressing or bandage on your scalp.
- Unless you know that your scalp is normal and healthy.

If any of these apply to you, get advice from a doctor or pharmacist before using Regaine®.
Talk to your doctor or pharmacist...

- If you are at all unsure whether your scalp is normal and healthy.
- If you suffer from heart disease, including abnormal heart rhythms or rates, angina or chest pains and/or circulation disorders.
- If you are taking or using any other medicines including:
  - Certain blood pressure medicines called ‘vasodilators’ e.g. hydrazaline. There is a potential risk that minoxidil, the active ingredient in Regaine® for Men Extra Strength Scalp Foam may interact with these medicines and increase their effect.
  - If you are not sure about the medicine you are taking or using, show the bottle or pack to your pharmacist.
  - If any of these bullet points apply, talk to a doctor or pharmacist.

If you are pregnant or breast-feeding:

- This product is for men and should NOT be used by women. It should NOT be used if you are pregnant or breast-feeding.

Some of the ingredients can cause problems

- Regaine® for Men Extra Strength Scalp Foam contains ethanol (alcohol), which will cause burning and irritation if you get it in the eye. If you get Regaine® for Men Extra Strength Scalp Foam in your eye, mouth or on a cut or damaged skin, wash the area well with lots of cool tap water.
- Gley alcohol or stearyl alcohol may cause local skin reactions (e.g. contact dermatitis).
Butylated hydroxytoluene (E321) may cause local skin reactions (eg contact dermatitis), or irritation to the eyes and mucous membranes.

Special warnings relating to Regaine® for Men Extra Strength Scalp Foam

If minoxidil passes into the blood stream it can cause some side-effects related to low blood pressure such as chest pain, rapid heartbeat, faintness, dizziness, swollen hands and feet or persistent redness. If you experience any of these side-effects, stop using the medicine and tell your doctor.

When Regaine® for Men Extra Strength Scalp Foam is used as recommended, it is extremely unlikely that these effects will occur. However there is a chance the drug could get into the blood stream if it is over used or if there is a scalp condition such as psoriasis present. Therefore it is very important that you use your medicine as recommended and follow the instructions very carefully. See section 3.

The product in this pressurized container, is extremely flammable, therefore exposure of the container or its contents to naked flames should be avoided. Protect from sunlight and do not expose to temperatures above 50°C/122°F. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Do not use near, or place container on, polished or painted surfaces.

Avoid contact with the eyes, mouth, broken skin and sensitive areas. If the foam is accidentally applied to areas of the body other than the scalp, rinse thoroughly with plenty of water.

Do not apply to areas of the body other than the scalp.
Exceeding the recommended dose will NOT re-grow your hair any more quickly and you have an increased likelihood of getting side-effects.

3 How to use this medicine

Regaine® for Men Extra Strength Scalp Foam is for topical and external use only. It should only be applied directly to the scalp area.

- Do not apply to areas of the body other than the scalp.
- Wash your hands thoroughly before and after applying the foam and rinse other areas that have come into contact with the foam.
- Make sure your hair and scalp are completely dry before applying the foam.
- To open container: Match arrow on can ring with arrow on cap. Pull off cap.
- Hold the can upside down and press nozzle to dispense the foam onto your fingers. The total amount of foam applied should not exceed 1 g (equivalent to the volume of half a capful).
- The foam may begin to melt on contact with warm skin, if your fingers are warm, rinse them in cold water first. Be sure to dry them thoroughly before handling the foam.
- The foam should be massaged lightly into the affected areas of the scalp.
**Daily dose for Adult Men**

**Age**  
Male adults aged 18 to 49 years

**Dose**  
- On a completely dry scalp and hair, apply a dose of 1 g (equivalent to the volume of half a capful) to the total affected area twice daily.
- Leave at least 12 hours between each use.
- Do not exceed 2 g in a day.
- Do not use more than twice a day.
- This product should **NOT** be used by women.

**Continued use of Regaine®**

- You may need to use this medicine twice daily for at least 8 weeks before you see new hair growth. This is because hair growth is a slow process.
- Hair growth may be soft and downy at the start but should eventually become the same as normal hair.
- Once the hair has begun to re-grow, you need to continue using this medicine twice a day for the growth to continue.
- If you have no improvement in your hair growth after 16 weeks of use, you should discontinue treatment.
- Clinical trials on Regaine Foam efficacy have not been carried out beyond 16 weeks.
- If at any time during your treatment you are concerned you should consult your doctor or pharmacist.

**If anyone uses too much**

- Seek immediate medical advice if anyone, including a child, uses too much of this medicine. Take the medicine and container with you.
If you forget to apply a dose of the foam
If you miss one or two applications just carry on as normal, as if you had not missed the dose – do not use twice as much or twice as often.

If you accidentally swallow the foam
If anyone, including a child, swallows any of the foam, take them to a hospital immediately with the Regaine for Men Extra Strength Scalp Foam pack if possible, as the doctor may like to have some idea of how much they have swallowed.

4 Possible side-effects
Regaine® for Men Extra Strength Scalp Foam can have side-effects, like all medicines, although these don’t affect everyone and are usually mild.

If you experience any of the following, stop using the medicine and seek immediate help:
■ Chest pain.

If you experience any of the following, stop using the medicine and tell your doctor:
■ Low blood pressure.
■ Rapid heart beat.
■ Faintness or dizziness.
■ Commonly: swollen hands or feet, shortness of breath, high blood pressure.
■ Sudden unexplained weight gain.
■ Persistent local redness or rash.
■ Commonly: Depression.

Other effects which may occur, include
■ Very Commonly: headache
Commonly; itching, excessive hair growth, acne rash, irritated skin, inflammatory skin disorders causing redness and itching, muscle pain, general pain.

Scalp irritation such as local redness, itchiness, dryness, flaky skin have all been reported. This may be due to the hydroxybutylated toluene, cetyl alcohol and/or stearyl alcohol in the product. This is usually only a temporary effect, but if it is persistent you should stop using this product.

Unwanted non-scalp hair has occasionally been reported. Always wash your hands thoroughly after application and if you accidentally apply the foam to parts of the body other than the scalp, rinse thoroughly with plenty of water.

Temporary hair loss may occur during the first 2 - 6 weeks of use. This is likely to be as a result of a change within the growth cycle and it should stop within a couple of weeks. If this hair loss continues for longer than 2 weeks, stop using the product and talk to your doctor.

Change in hair colour and/or texture may occur. If this happens you should stop using Regaine.

If you experience any side-effects not included in this leaflet or are unsure of anything, tell your doctor or pharmacist. Also you can help to make sure that medicines remain as safe as possible by reporting any unwanted side-effects via the internet at www.yellowcard.gov.uk; alternatively you can call Freephone 0808 100 3352 (available between 10am - 2pm Monday to Friday) or fill in the paper form available from your local pharmacy.
5 Storing the medicine

Keep out of the reach and sight of children.
Do not store above 25°C.
Do not use after the expiry date on the base of the can.
The product in this pressurized container, is extremely flammable, therefore exposure of the container or its contents to naked flames or any incandescent material should be avoided.
Protect from sunlight and do not expose to temperatures above 50°C/122°F.
Do not pierce or burn the container, even after use. Do not use while smoking.
Do not use near, or place container on, polished or painted surfaces.
Medicines should not be disposed of via wastewater or household waste. Ask your pharmacist how to dispose of medicines no longer required. These measures will help to protect the environment.

6 Further information

What’s in this medicine?

The active substance in 1 g of Regaine® is Minoxidil 50 mg.
Other ingredients are: Ethanol anhydrous, purified water, butylated hydroxytoluene (E321), lactic acid, citric acid anhydrous, glycerol, cetyl alcohol, stearyl alcohol, polysorbate 60, propane, butane, isobutane, nitrogen.

What the medicine looks like

Regaine® for Men Extra Strength Scalp Foam is a foam contained in a 73 ml (equivalent to 60 g) can, enough for 1 month of treatment. Packs contain 1 or 3 cans.
Product Licence holder:
McNeil Products Ltd,
Maidenhead, Berkshire,
SL6 3UG, UK.

Manufacturer:
Janssen Cilag S.A.,
Domaine de Maigremont, 27100,
Val de Reuil, France
or
McNeil Products Ltd, Maidenhead,
Berkshire, SL6 3UG, UK.

This leaflet was prepared September 2010.
Regaine® is a registered trade mark.

FURTHER INFORMATION ABOUT REGAINE® FOR MEN EXTRA STRENGTH SCALP FOAM

Q If my hair growth is restored using Regaine® for Men Extra Strength Scalp Foam, what will the new hair look like?
A If you respond to treatment, your initial re-growth may at first be soft, downy (“vellus”) hair and may be barely visible.
After further treatment, your hair re-growth may change and become the same colour and thickness as the rest of your hair.

Q Is shampooing necessary before applying Regaine® for Men Extra Strength Scalp Foam?
A No, but if you do choose to shampoo, we recommend the use of a shampoo with a gentle cleansing and conditioning action that does not impede the absorption of Regaine® for Men Extra Strength Scalp Foam.

Q Can I use a hair dryer with Regaine® for Men Extra Strength Scalp Foam?
A Yes, but not to dry the foam itself.
Q Can I use common hair styling preparations such as hair gels or hair sprays while using Regaine® for Men Extra Strength Scalp Foam?
A Yes, but Regaine® for Men Extra Strength Scalp Foam should be applied to the dry scalp before these other preparations are applied.

Q Can I have my hair dyed?
A Yes, you may, there is no need to change your hair care routine. However, you should tell your hair care professional that you are using Regaine® for Men Extra Strength Scalp Foam. To minimize breakage of existing hair, just ask that any massaging of your scalp be gentle, and that a comb with widely spaced, round teeth be used to avoid excessive pulling.

Q Can Regaine® for Men Extra Strength Scalp Foam be used with a sun-blocking agent?
A No. If you are planning to be in the sun after applying Regaine® for Men Extra Strength Scalp Foam, use headwear.

Q Can I apply Regaine® for Men Extra Strength Scalp Foam after swimming?
A Yes, as long as hair is dry. However, Regaine® for Men Extra Strength Scalp Foam should not be applied more frequently than twice a day.

Q How long will each can of Regaine® for Men Extra Strength Scalp Foam last?
A One can of Regaine® for Men Extra Strength Scalp Foam should last for 30 days (one month), if applied twice a day according to directions. As you near the end of a month’s supply, you should plan to re-new it so that you do not miss a daily application.
Prevents further hair loss and regrows hair.

Contra-indications: Do not use if you:
- Are a woman,
- Have had blood pressure problems,
- Have glaucoma, or
- Have had a heart attack, stroke, or transient ischaemic attack (TIA), or
- Have had certain types of cancer, or
- Have had a liver or kidney disorder.

Reactions: Do not use if you:
- Have had a reaction to another hair loss treatment,
- Have had a reaction to Minoxidil,
- Have had an allergic reaction to any other ingredients in this product,
- Are using any other treatments for hair loss,
- Are using a tretinoin.

Adverse effects: Do not use if you:
- Are under 18 years old,
- Are pregnant or breast feeding,
- Are allergic to any ingredients in this product.

Keep out of the reach of children. Store below 25°C. Keep the cap on the can when not in use. Regular use for 3 months’ supply. 3 x 73 ml (equivalent to 60 g) can cutaneous foam.

Regaine® for Men Extra Strength Scalp Foam 5% w/w Minoxidil

Hereditary hair loss treatment.

· PREVENTS FURTHER HAIR LOSS
· REGROWS HAIR

McNeill Products Ltd, Medenhead, Berkshire SL6 3LU, UK. PL 15513/0134 & 0366