EXPLORING THE DIAGNOSIS & MANAGEMENT OF DERMATITIS AND ACNE BY COMMUNITY PHARMACISTS

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• 24 % of the population visit a GP for advice on a skin problem each year (Schofield, 2011)

• Evidence suggests that dermatitis & acne account for 6.8 & 2.4m GP appointments (Pillay, 2010)

• Majority of patients > 80%) prescribed OTC medicines
PHARMACY MANAGEMENT OF SKIN CONDITIONS

- Pharmacists perceive eczema/dermatitis to be one of the main reasons why patients seek their advice (Tucker, 2012)
- Scope for transfer of care from GP
  - Are pharmacists able to assess & offer appropriate advice/treatment to patients?
  - Does pharmacy management provide a satisfactory resolution of symptoms?
AIMS

• To assess the “clinical appropriateness” of pharmacist assessment and management of dermatitis and acne

• To determine patient’s self-reported perceptions of the effectiveness & satisfaction with the pharmacy intervention
METHODS

• Exploratory study in 9 community pharmacies (South West/South England)

• Eligible patients:
  ❖ Presenting with symptoms suggestive of mild to moderate dermatitis (atopic, seborrheoic, irritant/allergic)
  ❖ Symptoms suggestive of mild to moderate acne
PHARMACY CONSULTATION

• Pharmacists gained informed consent from patients (or parent if < 16 years)
• Pharmacists audio-taped consultation and took representative photographs of the skin problem
• Audio file and digital images were uploaded to a secure cloud location
SPECIALIST ASSESSMENT

• Two consultant dermatologists & a trainee (GPwSi) independently listened to anonymised audio files and viewed digital images

• Used a pre-defined standardised, binary option (yes/no) on-line form

• Captured information on whether pharmacists asked appropriate questions & provided adequate advice/treatment - allowed for free text comments
ACNE & DERMATITIS STUDY
Assessor feedback

Assessor:
- AL
- EW
- RR
- AB
- Neither

Pharmacist Code:
- P1
- P2
- P3
- P4
- P5
- P6
- P7
- P8
- P9
- P10
- P11
- P12

Case Number:
- C1
- C2
- C3
- C4
- C5
- C6
- C7
- C8
- C9
- C10

When assessing the problem which of the following did the pharmacist adequately cover during the consultation:

- Location of the problem
- Duration of the problem
- Previous episodes
- Promoting or relieving factors
- Presence or absence of trigger
- If condition was affected by sunlight
- Medicines taken, prescription and orders
- Impact of the problem
- Family history or other family members affected
- Smoking and alcohol intake
- Previous treatments used
- Concurrent medical conditions
- Description of the skin lesions
- Level of distress

Additional comments?

How would you rate the quality of the audio?
- 1 - very poor
- 2
- 3
- 4
- 5 - very good

How would you rate the quality of the digital images?
- 1 - very poor
- 2
- 3
- 4
- 5 - very good

Do you feel able to identify the problem from the information and images provided?
- Yes
- No

Do you think the pharmacist correctly identified the skin condition?
- Yes
- No
- Unable to determine

Do you feel the treatment provided for the patient was adequate?
- Yes
- No
- Unable to determine

Any additional comments?
PATIENT FOLLOW-UP

- All patients sent a follow-up questionnaire (posted or via email)
  - 10 days after dermatitis consultation
  - 6 weeks after acne consultation
OUTCOME MEASURES

• Clinical appropriateness of pharmacist diagnosis & management defined as yes/no/unable to determine

• Patient self-reported effectiveness of treatment defined as “completely cleared” and if not, Likert-scale (much better to much worse)

• Patient reported level of satisfaction with pharmacy consultation

• Quality of audio and digital images rated on a 1 – 5 scale (1 = very poor, 5 = very good)
RESULTS
RESULTS

• 40 patients recruited (36 dermatitis/4 acne)
• 23 patients returned a follow-up questionnaire (58%)
• Audio quality - median rating was 4 (IQR = 1)
• Image quality – median rating was 4 (IQR = 2)
Proportion of consultations in which appropriate questions were asked (n=120)

- Description of lesion
- Patient’s assessment of severity today
- Impact of the problem
- Other medicines taken
- Concomitant medical conditions
- Previous treatments used
- Affected by smoking/alcohol intake
- Family history/other members affected
- Occupation/hobbies affecting the problem
- Affected by sunlight
- Presence/absence of itch
- Provoking/relieving factors
- Previous episodes
- Duration of the problem
- Where the problem started

% of cases where pharmacists questioned appropriately
## Diagnostic & Treatment Accuracy

<table>
<thead>
<tr>
<th>Skin problem/treatment</th>
<th>Correct</th>
<th>Incorrect</th>
<th>Unable to determine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition of skin problem (n = 113)</td>
<td>33.6%</td>
<td>39.0%</td>
<td>27.4%</td>
</tr>
<tr>
<td>Offered appropriate advice/treatment (n = 115)</td>
<td>41.7%</td>
<td>27%</td>
<td>31.3%</td>
</tr>
</tbody>
</table>
### SPECIALIST’S COMMENTS

<table>
<thead>
<tr>
<th>Themes</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate history taking</td>
<td>Specific questions in the history that would have helped the diagnosis not secured</td>
</tr>
<tr>
<td>Inadequate diagnostic questioning</td>
<td>No diagnosis made before telling patient to use exactly what she has just used and it didn’t work! Then touched on the correct diagnosis - fungal element - it came out in the history - not realised by pharmacist</td>
</tr>
<tr>
<td>Positive diagnostic questioning</td>
<td>Good history and correct diagnosis. Good explanation of how to use the creams, I liked the increased use of emollients - she clearly had not been using enough and I liked the repeating of the management advice to check she had got all the information</td>
</tr>
</tbody>
</table>
PATIENT FOLLOW-UP DATA
### DURATION OF SKIN PROBLEM BEFORE SEEKING ADVICE

<table>
<thead>
<tr>
<th>Duration of skin problem</th>
<th>N = 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 2 weeks</td>
<td>14 (60.9%)</td>
</tr>
<tr>
<td>1 – 2 weeks</td>
<td>7 (30.4%)</td>
</tr>
<tr>
<td>Less than 1 week</td>
<td>2 (8.7%)</td>
</tr>
</tbody>
</table>
RESULTS

• Most patients (18/22) received a topical treatment
• Two patients received topical product AND advised to visit GP
• Two patients referred directly to the GP
Reasons for choice of pharmacy

Patient Feedback (n=23)

- Others recommended the pharmacy
- Used pharmacy before with another problem & satisfied
- Used pharmacy before with skin problem & satisfied
- Visited pharmacy for another reason
- Didn’t want to bother GP with skin problem
- More convenient that going to the GP
RESOLUTION OF SKIN CONDITION

• 12 stated that their skin condition had “completely cleared”
• 2 stated that it was “much better”
• 9 stated that it was “moderately better”
• 6 patients subsequently visited their GP after the pharmacy consultation
<table>
<thead>
<tr>
<th>Level of satisfaction</th>
<th>N = 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>12 (52.2%)</td>
</tr>
<tr>
<td>Satisfied</td>
<td>9 (39.1%)</td>
</tr>
<tr>
<td>Very dissatisfied</td>
<td>2 (8.7%)</td>
</tr>
</tbody>
</table>
FUTURE INTENTIONS BASED ON PHARMACY CONSULTATION

• 78.3% (18/23) of patients were “very likely” to re-visit a pharmacy if they developed a skin problem in the future

• 17.4% (4/23) were “likely” & 1 patient was “unsure”

• 78.3% (18/23) were “very likely” to suggest that friends/colleagues sought advice on a skin problem from a pharmacy.
HOW DO WE EXPLAIN THE DIFFERENCES?

• Specialist and patient perceptions of appropriateness are are different

• Acquiescence/recall bias

• Conditions may have improved anyway but patients linked this to pharmacy treatment
LIMITATIONS

• Small sample size (50% response rate)
• Restricted to only two skin conditions
OTHER STUDIES

• Unsatisfactory advice
  • Rutter et al (2004, 2013)
  • Lamsam (1988)
  • Which? (2013)

• Pharmacist vs dermatologist agreement
  • Manahan (2011) – moderate agreement between groups
CONCLUSION

• Specialists felt that pharmacist assessment and management was suboptimal – yet disagreement between them!

• Patients were more positive with high levels of satisfaction

• Highlights the need for further pharmacist training in assessment and management of dermatitis & acne
REFERENCES

• Pilley et al. SelfCare 2010; 1(3): 105-116