

TOPICAL REVIEW

Non-pharmacological approach to smoking cessation

Baska T, Madar R, Straka S

*Institute of Epidemiology, Jessenius Faculty of Medicine, Comenius University, Martin, Slovakia. baska@jfmed.uniba.sk***Abstract**

Literary data on non-pharmacological approach in smoking cessation have been reviewed. The used methods are depending on particular target groups: patients visiting general practitioners, clients of smoking cessation clinics, pregnant women, hospitalised patients, and adolescents. Community based intervention represents a specific approach.

The existing data on non-pharmacological smoking cessation show certain differences with a wide range of the reported cessation rates. Important role of primary health care providers in smoking cessation is evident, however, frequently underestimated.

Specific situation in Central and Eastern Europe (CEE) requires evidence based data in this field, taking into consideration also psychological, social and cultural aspects. Only guidelines based upon authentic studies carried out in CEE can be of value for long-term tobacco control programmes. (Ref. 70.)

Key words: non-pharmacological smoking cessation, behavioral therapy, cognitive therapy.

Smoking cessation as a major tool of tobacco control (51, 58) can be facilitated by pharmacotherapy (5, 58, 62), but also by non-pharmacological methods used alone or as a supplement to pharmacotherapy, increasing their efficacy (34, 42, 48, 67). The non-pharmacological smoking cessation (NPSC) procedures are focused on improving self-confidence, increasing motivation, encouraging to overcome withdrawal symptoms and other techniques (such as exercise, acupuncture etc). Significance of behavioural cognitive approach rises namely when pharmacotherapy is contraindicated or its availability is reduced due to economic reasons.

Our objective is to present a review of the existing non-pharmacological approaches used in smoking cessation, to evaluate the objectively available information and to provide a scientifically based information in this field.

Material and methods

For information retrieval we used the Medline Ovid Database (37) and Cochrane Library (59) and closed it as to November 5, 2001. „Smoking cessation“ keyword using MeSH (Medical Subject Heading) system was employed. Papers were included that concerned indications and efficacy of NPSC and have been published since 1996 onwards. Left out were the repeating references, editorials, letters to the editor and papers not meeting

the mentioned criteria for this review. Eventually 60 references were thus selected.

Results

According to target groups, NPSC interventions can be divided into several sections, however, there are no clear borders and some approaches overlap:

Patients visiting general practitioners

These represent the most numerous group of potential quitters. Simple advice from the physician's mouth not to smoke without any further interventions, can effectively motivate them and can lead to quit rate of 2—10 % (24, 41, 49). Regular visits to physician's consulting room at the smokers' workplace provide a good opportunity to intervene (23). Intervention includes asking patients about their smoking, recommending quitting, and assistance if needed, so basic knowledge on cessation methods is essential for general practitioners (40, 42, 58, 67). However,

Institute of Epidemiology, Jessenius Faculty of Medicine, Comenius University, Martin, Slovakia

Address for correspondence: T. Baska, MD, PhD, Institute of Epidemiology, JLF UK, Sklabinska 26, SK-037 53 Martin, Slovakia.
Phone: +421.43.4134715

according to several studies, doctors underestimate their role in tobacco control and only a part of smokers have been advised to quit (9, 13, 30). Giving self-help materials without personal advice has not shown to be effective (41). Among physicians, paediatricians play an important role in this task, since child's health is a particular motivation to quit smoking of his/her parents (55). Taking into account cost-effectiveness, the shortest interventions (5–10 min) are the most effective. Although quit rate is relatively small (23), the number of intervened patients during the given time is high, and thus the absolute number of successfully motivated smokers is higher than in other procedures (58).

Clients of smoking cessation counselling centres or cessation clinics

Such centres provide assistance to already motivated smokers, and both group and individual therapy are effective (21, 22). Behavioural therapy alone can reach cessation rate for approximately 11% to 20% (27, 41, 52). Older smokers (≥ 50 years) not drinking alcohol are more successful, similarly as light smokers not strongly addicted (47, 68). Tailored approach increases efficacy (48) with sessions lasting at least 20 minutes (58). Self-help materials can be useful only as a supplement to other interventions (41). The importance of total abstinence after a quit attempt should be stressed, since it is a strong predictor of success (68). Gradual and sudden cessation are comparably effective (24). Exercise seems to have positive effect on cessation process, but in metaanalysis, its effect remains unclear (35). One study reports benefit of physical exercise practised three times weekly during cessation period in women resulting in approximately doubling of success rate (27). Objectivization of smoking status (biochemically, etc.) can effectively motivate quitters (17), however there is a little empirical evidence in this field (29). Individual support for quitters during cessation process (so called buddy system) showed some benefit in one study (28). Telephone follow up increased quit rate 3 months after the cessation course from 8.1% to 21% (64). However, authors of another article doubt about the efficacy of telephone contact (25). Existing studies do not provide sufficient evidence regarding efficacy of acupuncture (2, 69, 70), aversive methods (15), hypnotherapy (1), nor psychologic techniques used as a supplement to nicotine replacement therapy (66).

Pregnant women

They represent a specific target group, where the life-style modification plays a particularly important role. One article reports that without any intervention, 24% of smoking women quit shortly after they had become pregnant and in the final stage of pregnancy, cessation rate increases up to the 44%. Smoking habit continues mainly in pregnant heavy smokers, women with smoking partners, multiparae and low-educated women (16). However, significant proportion of former smokers relapses after their delivery (17) and more effective methods to influence their behavior are needed (14). In randomised clinical trial, co-unselling after delivery and telephone follow-up maintained quit rate after 6 months as high as 38%, against 27% in the control

group (20). Pregnant women are most receptive to quit during their first trimester. The health risk to their child (17, 18) and also problems with fertility increase their motivation to quit (17).

Hospitalised patients

Hospitalisation offers possibility to motivate patients to not smoking and to control their behaviour (7). Hospital programmes can reach 14.2–27% cessation rate, reported at least 6 months after intervention (33, 44, 46, 50, 56). There are heterogeneous results when two randomised control trials have shown only short term success (44, 56), while other two ones remained significant (33, 50). Intervention in these trials included consultation, video, self-help materials, telephone follow-up and in one of them nicotine replacement therapy (50). Biochemically confirmed quit rates were almost two times lower than subjectively reported (44, 50). Considering economic aspect of smoking cessation, hospital programmes consisting of 20-min interview, video, self-help written materials and telephone follow-up (1–2 calls) have shown to be cost-effective (8, 32). Nursing-oriented behavioural programmes have evidenced significance in such interventions (20, 33, 43, 60, 65).

Adolescents

In this age group, tobacco control activities should be targeted namely to avoidance of the nicotine dependence (45, 61). Assistance in cessation process should be provided for those who are the least likely to quit on their own, i.e. nicotine dependent smokers, exposed to stress and smokers with low cognitive coping abilities (53). However cessation rate in this age group is relatively low, reaching in one study 7.3% after one year of intervention including tailored treatment plan with telephone follow up lasting 6–12 months (39). Learning on effects of second-hand smoking can motivate adolescents to quit smoking (12). Workplace and home smoking restrictions can augment preventive measures and decrease smoking prevalence in youngsters (10).

Community population based programmes

Several articles report usefulness of countrywide population based programmes (6, 31, 38, 63), namely focused on youngsters (6), however, attracting only smokers who are already motivated to quit (3). Anti-smoking advertising TV campaign reduced overall smoking prevalence by about 1.2% after 18 months' follow-up compared to other region without such campaign (31). Advertisement of telephone helpline through mass media campaign can reach as high as 4.2% of the total population of adult smokers (38). Interactive TV smoking cessation programme consisting of 13 30-min live sessions, each followed by a 30-min telephone calling segment reached among participants 17% quit rate after 1 year (63). One study informs about the usefulness of worksite cessation programme, namely among employees under high level of stress (19). Workplaces with smoking bans promote cessation process resulting in higher quit rate compared to ones without smoking regulations, however the relapse rates are similar (26). Workplace regulations have shown positive effect namely in younger age groups (10).

Discussion

We are aware that the retrieved references show certain differences, which however in such type of studies can be to a some extent expected. These variations in the results can be explained by the diversity of the studied target group, the interval for evaluating results, the research methods and the origin of data (subjective vs objective). Therefore, in evaluation of such studies, these factors should be thoroughly considered. In practice, understanding the role of primary health providers, namely general practitioners, is essential (51), which should be stressed and physicians and nurses should be adequately educated. There is a lack of clear evidence on effective methods used in hospital patients and pregnant women, namely when the importance of these target groups is considered. Adolescents require special preventive approaches involving alcohol and illicit drugs (57), since standard programmes do not reach the expected results. In general, each approach is affected by significant relapse rate, indicating that smoking cessation is a complicated and long-lasting problem. There is a need for new, more effective methods in this field. Beside individually oriented measures, also community programmes play an important role. They may change the community views and decrease social acceptance of the smoking (4).

In Central and Eastern Europe (CEE) with their specific economic conditions, NPSC is of particular significance since pharmacological therapy is relatively expensive and therefore smokers look for another cheaper way how to quit. On the other hand, role of physicians and nurses is underestimated and health providers have a lack of information on smoking cessation techniques (60). The issue can be made more attractive also through better understanding of the economic importance of prevention in general by insurance companies. Data in this important field should be evidence based to be accepted by scientific and medical community. However, in many cases research methodology is still inadequate (28) and thus the obtained information can be contraproductive. Holistic approach to the issue involving beside biomedical and psychological factors, social, economic and cultural aspects, should be taken into consideration (11, 36). It becomes clear that experiences on this issue originating mainly from USA and Western Countries cannot be fully implemented in Slovakia and other CEE countries and current situation calls for authentic studies and trials respecting social, cultural and economic specific conditions. Only guidelines based on such studies can be successfully applied for smoking cessation in our specific situation.

References

1. **Abbot NC, Stead LF, White AR, Barnes J, Ernst E:** Hypnotherapy for smoking cessation (Cochrane Review). In: The Cochrane Library, Issue 3, 2001. Oxford: Update Software.
2. **Ashenden R, Silagy CA, Lodge M, Fowler G:** A meta-analysis of the effectiveness of acupuncture in smoking cessation. *Drug and Alcohol Rev* 1997; 16: 33—40.
3. **Bains N, Pickett W, Hoey J:** The use and impact of incentives in population-based smoking cessation programs: a review. *Amer J Health Promotion* 1998; 12 (5): 307—320.
4. **Ballová M:** The change of attitudes of the community towards smoking, the challenge for a nursing. Pp. 54—56. In: Health promotion and prevention. Proceeding of the 1st Conference on Health Promotion and prevention with international participation. Alter Ego, Martin, 1997, 110 p.
5. **Baška T, Mad'ar R, Straka S, Kavcová E:** Pharmacotherapy in smoking cessation. *Bratisl Lek Listy* 2001; 102 (6): 298—301.
6. **Bauer UE, Johnson TM, Hopkins RS et al:** Changes in Youth Cigarette Use and Intentions Following Implementation of a Tobacco Control Program: Findings From the Florida Youth Tobacco Survey, 1998—2000. *J Amer Med Ass* 2000; 284 (6): 723—728.
7. **Burse M, Craig D:** Attitudes, Subjective Norm, Perceived Behavioral Control, and Intentions Related to Adult Smoking Cessation After Coronary Artery Bypass Graft Surgery. *Publ Health Nurs* 2000; 17 (6): 460—467.
8. **Cromwell J, Bartosch WJ, Fiore MC, Hasselblad V, Baker T:** Cost-effectiveness of the Clinical Practice Recommendations in the AHCPR Guideline for Smoking Cessation. *J Amer Med Ass* 1997; 278 (21): 1759—1766.
9. **Doescher MP, Saver BG:** Physicians' Advice to Quit Smoking: The Glass Remains Half Empty. *J Fam Pract* 2000; 49 (6): 543—547.
10. **Farkas AJ, Gilpin EA, White MM et al:** Association Between Household and Workplace Smoking Restrictions and Adolescent Smoking. *J Amer Med Ass* 2000; 284 (6): 717—722.
11. **Gecková A, Pudelský M, Tuinstra J, Kovářová M:** Health Status of Slovak Apprentices — Comparison of Boys and Girls. *Čes-slov Pediat* 2000, 55 (6): 357—364.
12. **Glantz S, Jamieson PE:** Attitudes Toward Secondhand Smoke, Smoking, and Quitting Among Young People. *Pediatrics* 2000; 106 (6): 82.
13. **Goldstein MG, Niaura R, Willey-Lessne C et al:** Physicians Counseling Smokers: A Population-Based Survey of Patients' Perceptions of Health Care Provider-Delivered Smoking Cessation Interventions. *Arch Intern Med* 1997; 157 (12): 1313—1319.
14. **Groner JA, Ahijevych K, Grossman LK, Rich LN:** The Impact of a Brief Intervention on Maternal Smoking Behavior. *Pediatrics* 2000; 105 (1) (Suppl to Pediatrics, Part 3 of 3): 267—271.
15. **Hajek P, Stead LF:** Aversive smoking for smoking cessation (Cochrane Review). In: The Cochrane Library, Issue 3, 2001. Oxford: Update Software.
16. **Hakansson A, Lendahls L, Petersson Ch:** Which women stop smoking?: A population-based study of 403 pregnant smokers. *Acta Obstet Gynecol Scand* 1999; 78 (3): 217—224.
17. **Hughes EG, Lamont D, Beecroft M et al:** Randomized trial of a „stage-of-change“ oriented smoking cessation intervention in infertile and pregnant women. *Fertility & Sterility* 2000; 74 (3): 498—503.
18. **Hutchison KE, Stevens VM, Collins FL:** Cigarette Smoking and the Intention to Quit Among Pregnant Smokers. *J Behav Med* 1996; 19 (3): 307—316.
19. **Chan W, Heaney CA:** Employee Stress Levels and the Intention to Participate in a Worksite Smoking Cessation Program. *J Behav Med* 1997; 20 (4): 351—364.
20. **Johnson JL, Ratner PA, Bottorff JL et al:** Preventing Smoking Relapse In Postpartum Women. *Nursing Research* 2000; 49 (1): 44—52.

21. **Lancaster T, Stead LF:** Individual behavioural counselling for smoking cessation (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2001. Oxford: Update Software.
22. **Lancaster T, Stead LF:** Self-help interventions for smoking cessation (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2001. Oxford: Update Software.
23. **Lang T, Nicaud V, Slama K, Hirsch A et al:** Smoking cessation at the workplace. Results of a randomised controlled intervention study. *J Epidemiol Community Health* 2000; 54 (5): 349—354.
24. **Law M, Tang JL:** An analysis of the effectiveness of interventions intended to help people stop smoking. *Arch Intern Med* 1995; 155, 1933—1941.
25. **Lichtenstein E, Andrews J, Lee M et al:** Using radon risk to motivate smoking reduction: evaluation of written materials and brief telephone counselling. *Tobacco Control* 2000; 9 (3): 320—326.
26. **Longo D, Johnson J, Kruse R:** A prospective investigation of the impact of smoking bans on tobacco cessation and relapse. *Tobacco Control* 2001; 10 (3): 267—272.
27. **Marcus BH, Albrecht AE, King TK et al:** The Efficacy of Exercise as an Aid for Smoking Cessation in Women: A Randomized Controlled Trial. *Arch Intern Med* 1999; 159 (11): 1229—1234.
28. **May S, West R:** Do social support interventions (“buddy systems”) aid smoking cessation? A review. *Tobacco Control* 2000; 9 (4): 415—422.
29. **McClure J:** Are Biomarkers a Useful Aid in Smoking Cessation? A Review and Analysis of the Literature. *Behavioral Medicine*. 2001; 27 (1): 37—47
30. **McIlvain HE, Crabtree, BF, Backer EL, Turner PD:** Use of Office-Based Smoking Cessation Activities in Family Practices. *J Fam Pract* 2000; 49 (11): 1025—1029.
31. **McVey D, Stapleton J:** Can anti-smoking television advertising affect smoking behaviour? Controlled trial of the Health Education Authority for England’s anti-smoking TV campaign. *Tobacco Control* 2000; 9 (3): 273—282.
32. **Meenan RT, Stevens VJ, Hornbrook MC:** Cost-Effectiveness of a Hospital-Based Smoking Cessation Intervention. *Med Car* 1998; 36 (5): 670—678.
33. **Miller NH, Smith PM, DeBusk RF et al:** Smoking Cessation in Hospitalized Patients: Results of a Randomized Trial. *Arch Intern Med* 1997; 157 (4): 409—415.
34. **Nilsson P, Lundgren H, Soderstrom M et al:** Effects of smoking cessation on insulin and cardiovascular risk factors — a controlled study of 4 months’ duration. *J Intern Med* 1996; 240 (4): 189—194.
35. **Nishi N, Jenicek M, Tatar K:** A meta-analytic review of the effect of exercise on smoking cessation. *J Epidemiol* 1998; 8 (2): 79—84.
36. **Ochaba R:** Cognitive-behavioral psychotherapy in smoking cessation 117—122. Proceeding of the 28th I. Stodola’s days, State Health Institute of the Slovak Republic, 2001, Bratislava, 185 p.
37. **OVID.** Welcome to Ovid Technologies. November 2001, available at: www.ovid.com
38. **Owen L:** Impact of a telephone helpline for smokers who called during a mass media campaign. *Tobacco Control* 2000; 9 (2): 148—154.
39. **Patten CA, Ames SC, Ebbert JO et al:** Tobacco Use Outcomes of Adolescents Treated Clinically for Nicotine Dependence. *Arch Pediatr Adolesc Med* 2001; 155 (7): 831—837
40. **Pine D, Sullivan S, Sauser M, David C:** Effects of a Systematic Approach to Tobacco Cessation in a Community-Based Practice. *Arch Fam Med* 1997; 6 (4): 363—367.
41. **Prochazka AV:** New Developments in Smoking Cessation*. *Chest*. 2000; 117 (4) (Supplement 1): 169S—175S.
42. **Rennard SI, Daughton DM:** Smoking Cessation* 2000; *Chest* 117 (5) (Supplement 2): 360S—364S.
43. **Rice VH, Stead LF:** Nursing interventions for smoking cessation (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2001. Oxford: Update Software.
44. **Rigotti NA, Arnsten JH, McKool KM et al:** Efficacy of a Smoking Cessation Program for Hospital Patients. *Arch Intern Med* 1997; 157 (22): 2653—2660.
45. **Sargent JD, Mott LA, Stevens M:** Predictors of Smoking Cessation in Adolescents. *Arch Pediatr Adolesc Med* 1998; 152 (4): 388—393.
46. **Sciamanna CN, Hoch JS et al:** Comparison of Five Measures of Motivation to Quit Smoking Among a Sample of Hospitalized Smokers. *J Gen Intern Med* 2000; 15 (1): 16—23.
47. **Sherman SE, Wang M, Nguyen B:** Predictors of Success in a Smoking Cessation Clinic. *J Gen Intern Med* 1996; 11 (11): 702—704.
48. **Shiffman S, Paty JA, Rohay JM et al:** The Efficacy of Computer-Tailored Smoking Cessation Material as a Supplement to Nicotine Polacrilex Gum Therapy. *Arch Intern Med* 2000; 160 (11): 1675—1681.
49. **Silagy C, Stead LF:** Physician advice for smoking cessation (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2001. Oxford: Update Software.
50. **Simon JA, Solkowitz SN, Carmody TP, Browner WS:** Smoking Cessation After Surgery: A Randomized Trial. *Arch Intern Med* 1997; 157 (12): 1371—1376.
51. **Simpson D:** Doctors and Tobacco. *Medicine’s Big Challenge* 1st Edition, Tobacco Control Resource Centre. London, 2000, 60 p.
52. **Sippel JM, Osborne ML, Bjornson W et al:** Smoking Cessation in Primary Care Clinics. *J Gen Intern Med* 1999; 14 (11): 670—676.
53. **Siqueira LM, Rolnitzky LM, Rickert VI:** Smoking Cessation in Adolescents: The Role of Nicotine Dependence, Stress, and Coping Methods. *Arch Pediatr Adolesc Med* 2001; 155 (4): 489—495.
54. **Stead LF, Lancaster T:** Group behaviour therapy programmes for smoking cessation (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2001. Oxford: Update Software.
55. **Stein RJ, Haddock ChK, O’Byrne KK et al:** The Pediatrician’s Role in Reducing Tobacco Exposure in children. *Pediatrics* 2000; 106 (5) (Part 1 of 2): e66.
56. **Stevens VJ, Glasgow RE, Hollis JF, Mount K:** Implementation and Effectiveness of a Brief Smoking-Cessation Intervention for Hospital Patients. *Medical Care* 2000; 38 (5): 451—459.
57. **Syrovcová L, Venderová K, Višňovský P:** Attitudes of undergraduate pharmacy students towards alcohol and smoking. *Folia Pharm Univ Carol* 2001; 26: 7—14.
58. **The Agency for Health Care Policy and Research Smoking Cessation Clinical Practice Guideline.** *J Amer Med Ass* 1996; 275 (16): 1270—1280.
59. **The Cochrane Library.** November 2001, available at: www.cochranelibrary.com/cochrane/cochrane-frame.html

- 60. Todd ST, LaSala KB, Neil-Urban S:** An Integrated Approach to Prenatal Smoking Cessation. *MCN. Amer J Maternal Child Nursing* 2001; 26 (4): 185—190.
- 61. University of York.** NHS Centre for Reviews and Dissemination. Preventing the uptake of smoking in young people. *Effective Health Care* 1999; 5 (5): 12.
- 62. Vadász I:** Pharmacotherapy in smoking cessation. *Med Thorac* 1989; 42: 449—455.
- 63. Valois RF, Adams KG, Kammermann SK:** One-Year Evaluation Results from CableQuit: I A Community Cable Television Smoking Cessation Pilot Program. *J Behav Med* 1996; 19 (5): 479—499.
- 64. Wadland WC, Soffelmayr B, Ives K:** Enhancing Smoking Cessation of Low-Income Smokers in Managed Care. *J Fam Pract* 2001; (2): 138—144.
- 65. Wadland WC, Stoffelmayr B, Berger E et al:** Enhancing Smoking Cessation Rates in Primary Care. *J Fam Pract* 1999; 48 (9): 711—718.
- 66. Ward T:** Using psychological insights to help people quit smoking. *J Adv Nurs* 2001; 34 (6): 754—759.
- 67. West R, McNeill A, Raw M:** Smoking cessation guidelines for health professionals: an update. *Thorax* 2000; 55 (12): 987—999.
- 68. Westman EC, Behm FM, Simel DL, Rose JE:** Smoking Behavior on the First Day of a Quit Attempt Predicts Long—term Abstinence. *Arch Intern Med* 1997; 157 (3): 335—340.
- 69. White AR, Rampes H, Ernst E:** Acupuncture for smoking cessation (Cochrane Review). In: *The Cochrane Library, Issue 3, 2001.* Oxford: Update Software.
- 70. White AR, Resch KL, Ernst E:** Randomized Trial of Acupuncture for Nicotine Withdrawal Symptoms. *Arch Intern Med* 1998; 158 (20): 2251—2255.

Received October 27, 2001.
Accepted November 12, 2001.

NEW BOOKS

Vlasin Z, Jedlickova H et al: Practical Dermatology in Pictures and Schemes. Brno, VLADERMA 2001, 251 p, 981 color photographs and an amount of drawings and schemes.

Dermatovenereology is a discipline, which encompasses both internal internal and external factors and their mutual interference. That is the reason why the diagnosis of skin diseases is so hard. The examining doctor has to meticulously analyze the problem with the medical history of the patient as well as other factors in mind. This is the way that the dermatologist and any other examining doctor will reach an etiologic diagnosis which is the base for an etiologic therapy.

The book has 10 chapters (Diagnostic Basics, Regional Dermatology, Symptoms Leading to Diagnosis, Dermatoses with Potentially Lethal Results, Often Prevailing Dermatoses, Skin Manifestations in System Disorders, Practical Remarks, Venereological Minimum, Imported Dermatoses, Remarks to Dermatological Therapy). The end of the book contains literature used and the register.

The vast amount of pictures makes this publication by Vlasin et al an excellent diagnostical atlas. It is “untraditional“ in the way it follows more than one method by which the examining doctors can reach a diagnosis.

The diagnostic procedures begins with the medical history of the patient, Basic examination of skin changes and continues with various other diagnostic methods, which can gradually verify the diagnosis. Another diagnostic tool is regional dermatology

(localization type dermatoses, dermatoses with typical localization and the diagnosis of dermatoses according to body part of localization). Another way of achieving the diagnosis is are symptoms leading to the clinical diagnosis. A very positive aspects of this publication is the fact that the authors justify their diagnostic conclusions with color pictures, schemes and easy to understand illustrations. The verification of a potentially lethal diagnosis should be a memento for the examining doctor to consult a specialist-dermatologist or a dermatologic clinic. Also the incidence of often prevailing skin diseases should be a warning to the doctor and the knowledge of them are positive for the diagnosed patient. The chapter Practical Remarks has a similar importance. Venereological Minimum, Imported Dermatoses are chapters that are becoming exceedingly more of the day.

Topical therapy has enough space and practical therapy is mentioned in parts concerning different diseases.

The use of this publication offers the doctor a methodical approach to achieving a clinical diagnosis and helps maintain the right track in therapy. The book has a high academic level.

In conclusion, it can be said, that this publication by Vlasin et al is a positive income and offers the examining doctor and other specialists adequate assistance in solving diverse problem of diagnosis and therapy of skin diseases and infections.

E. Hegyi