



The roles of Pharmacists in managing CV risk

Beyond the pharmacy counter

For Healthcare Professionals only



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Learning objectives



At the end of this session, you will be able to learn the following:

01

Pharmacist intervention on CVD prevention and management

02

Evidence-based on the effectiveness of pharmacist intervention on CV risk factors

03

Management of CV risk factors

CVD, cardiovascular disease; CV, cardiovascular



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Pharmacist Intervention on CVD prevention and management

CVD, cardiovascular disease



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Current major issues with the public healthcare



Patients have difficulties assessing primary care physicians¹



Healthcare costs are rapidly increasing¹



CV risk assessment is often not integrated into clinicians' daily routine²



Patients not receiving optimal drug therapy for the primary and secondary CVD prevention due to various factors such as nonadherence, inadequate follow-up, etc.

CV, cardiovascular; CVD, cardiovascular disease



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Pharmacists in addressing major healthcare issues³



**Highly assessible HCP
who frequently see
patients**

**Well-positioned to
identify patients with
or at high risk for CVD**

**Able to assess the risk
for CVD and assist in
CV risk management**



HCP, healthcare professionals; CVD, cardiovascular disease; CV, cardiovascular



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Pharmacist intervention vs usual intervention



Key components of pharmacist-directed care intervention (monthly)¹

VS

Description of usual care intervention¹



- Measurement of BP
- Patient education and counselling of medication, disease and lifestyle (educational leaflets and use of diary on hypertension and food)
- Identification, resolution and prevention of drug-related problems
- Recommendation to physician regarding medication regimen changes via letter or patient medical record

- No pharmacist involvement
- Usual pharmacy dispensing services (brief counseling, medication review, monitoring for adverse drug reactions)



OUTCOME:

Pharmacist-directed care showed beneficial changes in BP from baseline¹

BP, blood pressure



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Pharmacist intervention vs usual intervention



Key components of pharmacist-directed care intervention (weekly)¹

VS

Description of usual care intervention¹



- Smoking cessation programme including:
 - Distribution of nicotine patch;
 - Weekly counselling visits; and
 - Measurement of expired carbon monoxide



- Advice quitting smoking

OUTCOME:

Pharmacist-directed care showed prevalence of continuous abstinence and point prevalence of abstinence¹



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Pharmacist intervention vs usual intervention



Key components of pharmacist-directed care intervention¹

VS

Description of usual care intervention¹



- Pharmaceutical care at baseline, 6 and 12 months including:
 - Assessment and adjustment of medication regimen;
 - Identification and prevention of drug related problems; and
 - Laboratory tests if necessary



- No pharmaceutical care

OUTCOME:

Pharmacist-directed care showed significant improvement in reporting of TC and LDL-C¹

TC: Total Cholesterol
LDL-C: Low density lipoprotein -cholesterol



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Pharmacist intervention vs usual intervention



Key components of pharmacist-directed care intervention¹

VS

Description of usual care intervention¹



- Team members: Pharmacist + Physician
- Assessment and adjustment of hypertension medication approved by physician at baseline, 3 and 6 months
- Assessment of BP
- Verbally drug recommendations to physician
- Drug education to physician if necessary



- Usual counselling by Pharmacist

OUTCOME:

Pharmacist-collaborative care with Physician showed beneficial changes in BP from baseline¹

BP, blood pressure



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Effectiveness of pharmacist intervention on CV risk factor

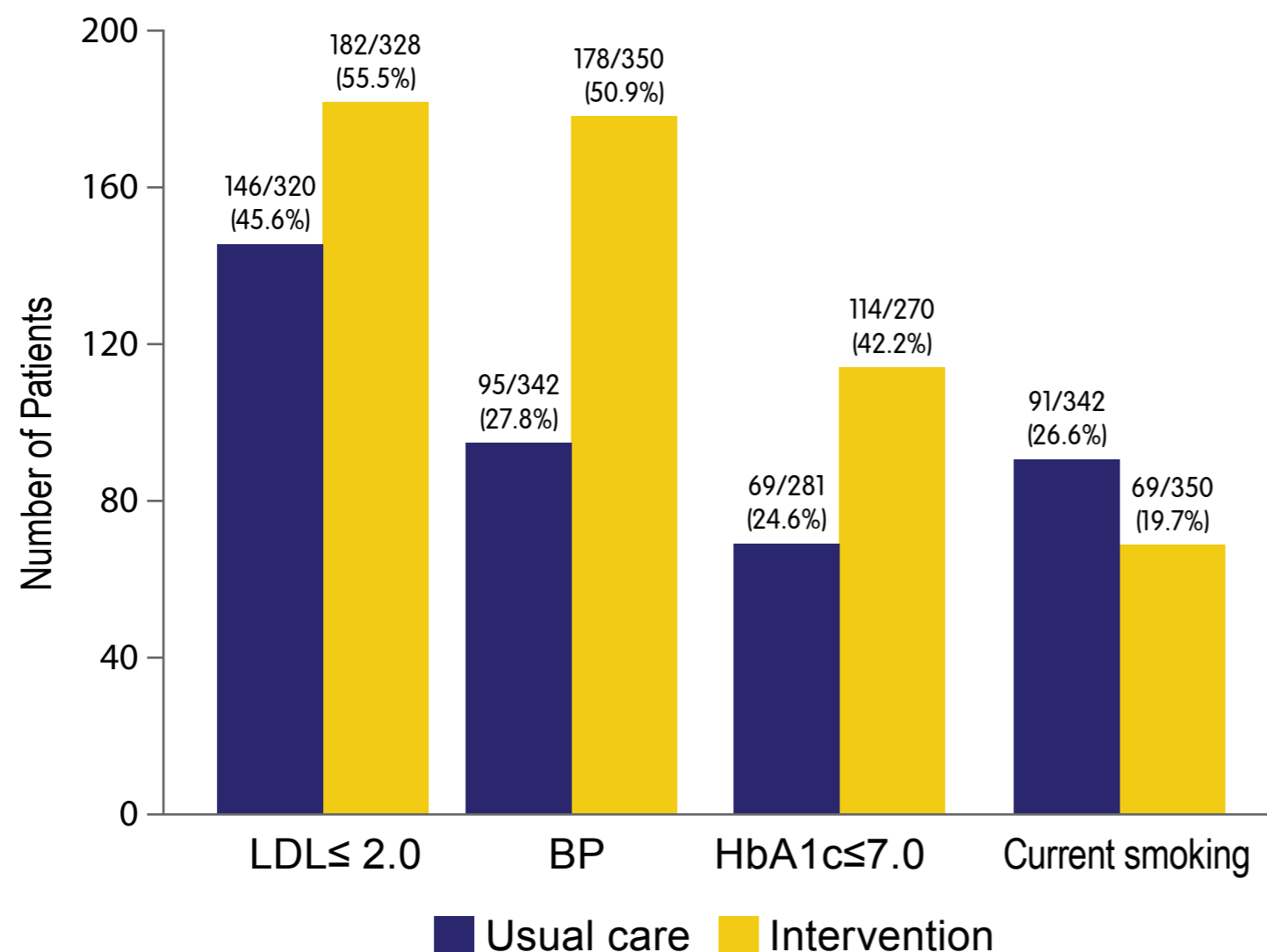


CV, cardiovascular



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A multicenter, randomized controlled trial demonstrated that at 3 months, more patients reaching the recommended targets for LDL-C, BP and HbA1c and current smoking status in the pharmacist intervention group than the usual care group²



- ✓ The intervention group had a **0.2 mmol/L greater reduction in LDL-C** than the control group² ($p < 0.001$)
- ✓ The intervention group had a **9.37 mmHg greater reduction** in systolic BP than the control group² ($p < 0.001$)
- ✓ The intervention group had a **0.92% greater improvement in glycaemic control** than the control group² ($p < 0.001$)
- ✓ The intervention group had a **20% greater relative reduction in smoking** than the control group² ($p < 0.002$)

LDL-C, low-density lipoprotein cholesterol; BP, blood pressure; HbA1C, haemoglobin A1c; CI, confidence interval



Management of CV risk factors



CV, cardiovascular



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Ways for managing CV risk factors



Make effort to keep high-risk patients on a statin-based regimen by recommending well-tolerated regimen³

Any drug-related problems?

What is the recommended statin therapy for high-risk patient?

What other medications is the patient taking?



Any history of other illnesses that I should know of?



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Ways for managing CV risk factors

Educate patient on the importance of balance calorie intake and physical activity to maintain or achieve a healthy body weight^{3,4}



Record daily calorie intake using mobile applications or logbook



Tell the patient that mopping the floor and vacuum cleaning are also exercise!



Use the Malaysian Dietary Guidelines as a reference



Tell the patient to walk instead of driving to nearby locations



Ways for managing CV risk factors



Provide smoking cessation counselling by recommending nicotine or prescription therapy when required^{3,4}

Where to go if the patient wants help to quit smoking?

Educate the patient that smoking is a risk factor for CVD. But the good news is it is a modifiable condition



Ask patients when do they usually smoke? (Smoking are often used to cope with stress and anxiety)

Find out about mQuit services and national Quitline (telephone calls)

CVD, cardiovascular disease



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Ways for managing CV risk factors



Emphasize the importance of moderation of alcohol consumption which may potentially damage the vital organs³

Provide long-term follow-up by sending reminder and setting up a schedule for follow-up via phone or visit^{3,4}

ASK QUESTIONS

- ✓ *I know it must be difficult to take all your medications regularly. How often do you miss taking them?*
- ✓ *Of the medications prescribed to you, which ones are you taking?*
- ✓ *Have you had to stop any of your medications for any reasons?*



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Ways for managing CV risk factors



Emphasize the importance of moderation of alcohol consumption which may potentially damage the vital organs³



Reminder for patients to bring all their medications patient medical booklet during their next visit⁴



Summary



1. Pharmacists are highly assessible HCPs who are well-positioned in addressing major healthcare issues such as CV risk factors
2. Pharmacist interventions are effective in managing CV risk factors, compared with usual care
3. Ways for managing CV risk factors include patient education and counselling



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References



1. Santchi V, *et al.* *Arch Intern Med* 2011;171:1441-1453.
2. Tsuyuki RT, *et al.* *J Am Coll Cardiol* 2016;67:2846-2854.
3. Manigault KR, Lewis KA. *J Pharm Pract* 2015;28:35-43.
4. Ministry of Health Malaysia. Clinical Practice Guidelines on Primary & Secondary Prevention of Cardiovascular Disease 2017.
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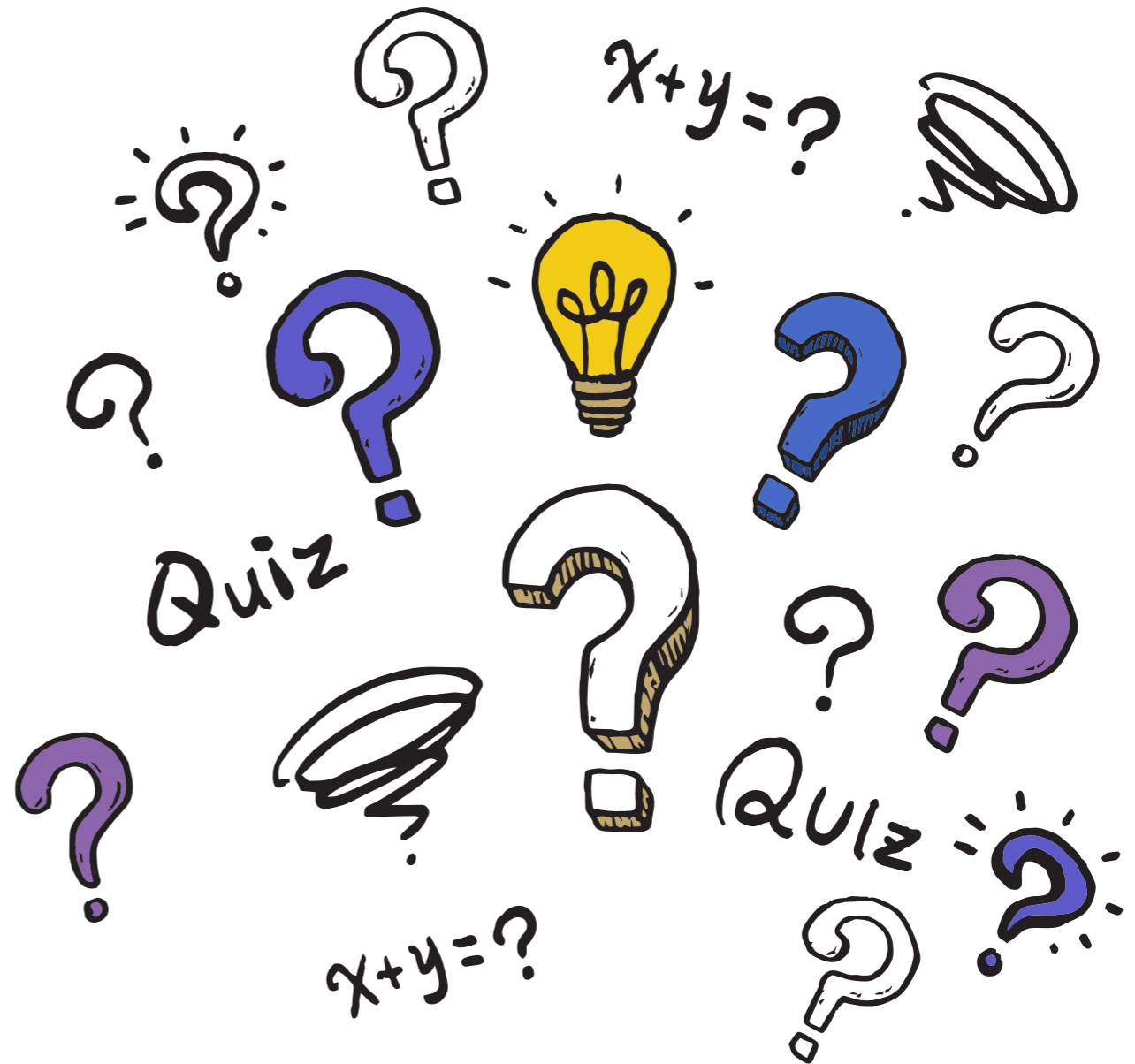
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Q & A

1. Pharmacist-directed care intervention have been shown effective in the management of CV risk factors, compared with usual care intervention.

TRUE or FALSE?

- A. TRUE
- B. FALSE



Answer:

A



Reference: Santchi V, et al. *Arch Intern Med* 2011;171:1441–1453.

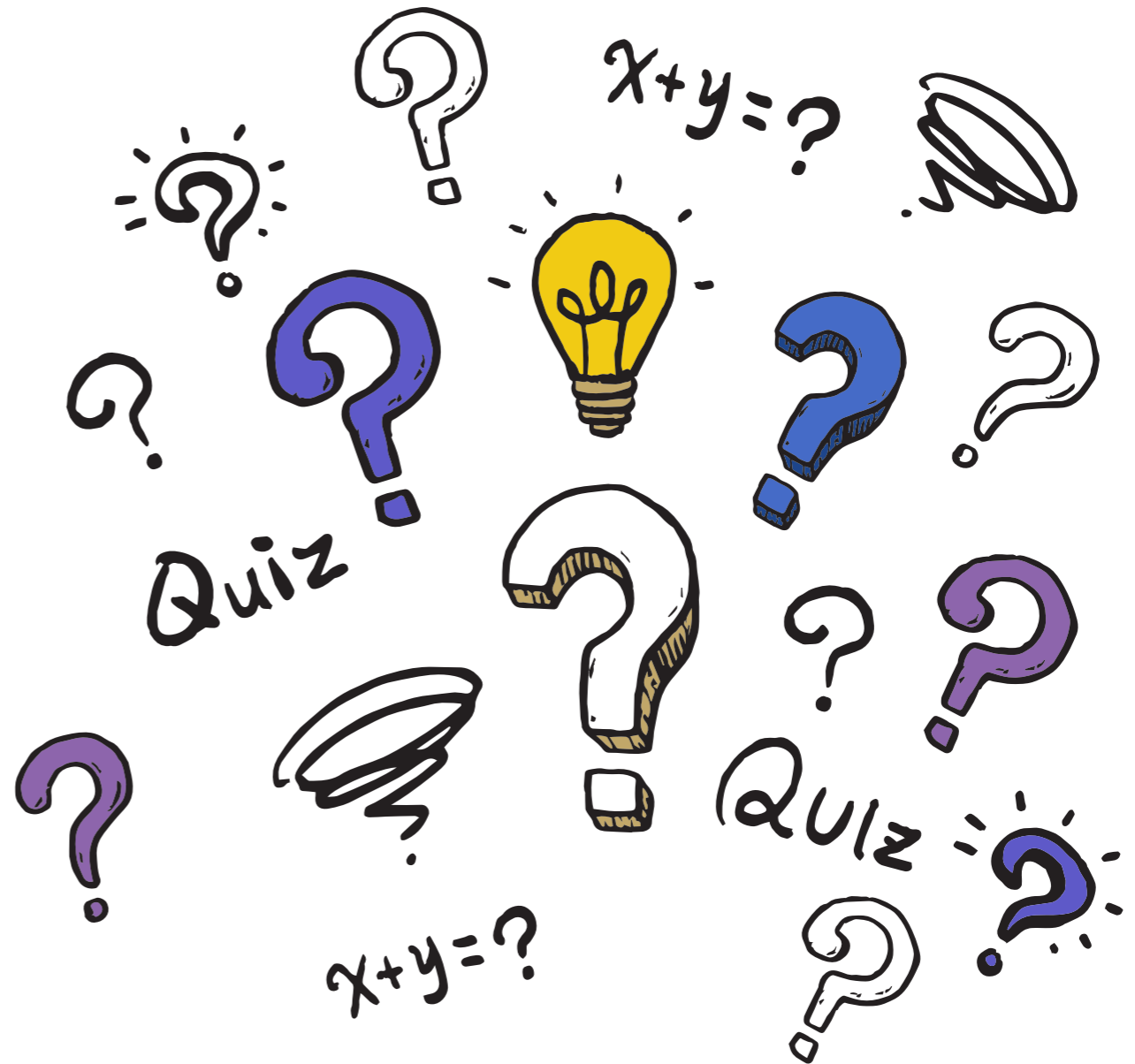


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Q & A

2. Which of the following are the roles of a pharmacist in managing CV risk factors?

- I. Provide long-term follow-up by sending reminder and setting up a schedule for follow-up via phone or visit
 - II. Educate patient on the importance of balance calorie intake and physical activity
 - III. Make effort to keep high-risk patients on a statin-based regimen by recommending well-tolerated regimen
 - IV. Provide smoking cessation counselling
-
- A. I, II & IV
 - B. I, III & IV
 - C. II, III & IV
 - D. All of the above



Answer:

D



References: 1. Manigault KR, Lewis KA. *J Pharm Pract* 2015;28:35–43. 2. Ministry of Health Malaysia. Clinical Practice Guidelines on Primary & Secondary Prevention of Cardiovascular Disease 2017. Available at: http://www.acadmed.org.my/view_le.cfm?leid=848. Accessed 19 February 2023.





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