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# A Team-Based Care (TBC) for Hypertension Management: A Randomized Controlled Study

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Health Services Research Symposium, Bern, March 1st 2017

 **SAMWASSM**  
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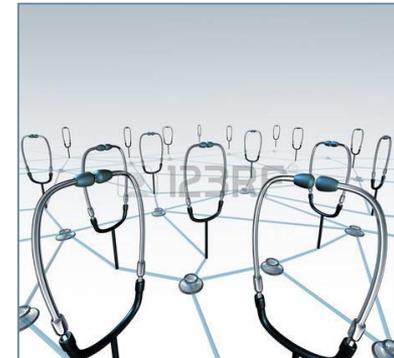
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# TBC-Hypertension study

## Presentation plan

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- Context & study protocol
- News from the field study
  - Current status
  - Patients and healthcare professionals' experiences
- Challenges
- Conclusion & Perspective



# TBC-Hypertension study

## Context

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HTA control  
suboptimal

- 50% of  
treated patients  
remain  
uncontrolled<sup>1</sup>

Ageing  
population

Limitation  
to access  
and heavy  
workload  
of primary  
care MD

<sup>1</sup>Danon-Hersch Eur J Cardiovasc Prev Rehabil. 2009

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Recommendation of **team-based care models** to improve HTA control

(2012 US Preventive Services Task Force)

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Greater involvement of **non physicians healthcare professionals** - pharmacist and nurse

- provider of health services
- member of healthcare team

(2012 US Preventive Services Task Force)

# TBC-Hypertension study

## Partners & Fundings

Principal investigators	<ul style="list-style-type: none"> <li>• Prof. HES Dr Valérie Santschi, PharmDipl, PhD, La Source, HES-SO, Lausanne Service of Nephrology/Hypertension, CHUV, Lausanne</li> <li>• Prof. Dr med. Michel Burnier, MD, Service of Nephrology/Hypertension, CHUV, Lausanne</li> </ul>
Co-investigators	<ul style="list-style-type: none"> <li>• PD Dr med. Grégoire Wuerzner, MD, Service of Nephrology/Hypertension, CHUV, Lausanne</li> <li>• PD Dr med. Arnaud Chiolerio, MD, PhD, IUMSP, CHUV, Lausanne</li> <li>• Prof. Dr med. Bernard Burnand, MD, MPH, IUMSP, CHUV, Lausanne</li> <li>• Dr med. Phillipe Schaller, MD, Cité générations, Onex, Genève</li> <li>• Prof. Dr Lyne Cloutier, RN, PhD, UQTR, Canada</li> <li>• Prof. Dr med. Gilles Paradis, MD, MSc, McGill University, Canada</li> </ul>
Collaborators	<ul style="list-style-type: none"> <li>• Sylvie Tremblay, RN, Service of Nephrology/Hypertension, CHUV, Lausanne</li> <li>• Prof. Christine Cohen, RN, MSc, La Source, HES-SO, Lausanne</li> <li>• Tania Blanc, MSc, La Source, HES-SO, Lausanne</li> </ul>
Fundings/Support	<ul style="list-style-type: none"> <li>• <b>«Health Services Research» Funding program &amp; Seed Money of the Gottfried and Julia Bangerter-Rhyner-Stiftung and the Swiss Academy of Medical Sciences</b></li> <li>• Swiss Society of Hypertension AstraZeneca Grant-in-Aid</li> </ul>

# TBC-Hypertension study

## Research question

Santschi et al. *BMC Cardiovascular Disorders* (2017) 17:39  
DOI 10.1186/s12872-017-0472-y

BMC Cardiovascular Disorders

**STUDY PROTOCOL** **Open Access**

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Team-based care for improving hypertension management among outpatients (TBC-HTA): study protocol for a pragmatic randomized controlled trial

Valérie Santschi<sup>1,2\*</sup>, Grégoire Wuerzner<sup>2</sup>, Arnaud Chiolero<sup>3</sup>, Bernard Burnand<sup>3</sup>, Philippe Schaller<sup>4</sup>, Lyne Cloutier<sup>5</sup>, Gilles Paradis<sup>6</sup> and Michel Burnier<sup>2</sup>

Does a TBC interprofessional intervention (**nurse-pharmacist-physician**)

- improve **BP control** among treated uncontrolled hypertensive outpatients, compared with usual care group (care not involving nurse and pharmacist intervention)?

# TBC-Hypertension study

## Study protocol

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BMC Cardiovascular Disorders

STUDY PROTOCOL

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## Team-based care for improving hypertension management among outpatients (TBC-HTA): study protocol for a pragmatic randomized controlled trial

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<https://clinicaltrials.gov/ct2/show/NCT02511093>



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Santschi - TBC-Hypertension - 01.03.2017

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# TBC-Hypertension study

## Study protocol

### Aim

- to determine if a TBC interprofessionnal intervention improves BP control

### Methods

- RCT (110 treated uncontrolled hypertensive patients) with 6-month of follow-up
- Interprofessional intervention**
  - BP measurement, evaluation of medication adherence, lifestyle and treatment by nurse and pharmacist, in collaboration with physician

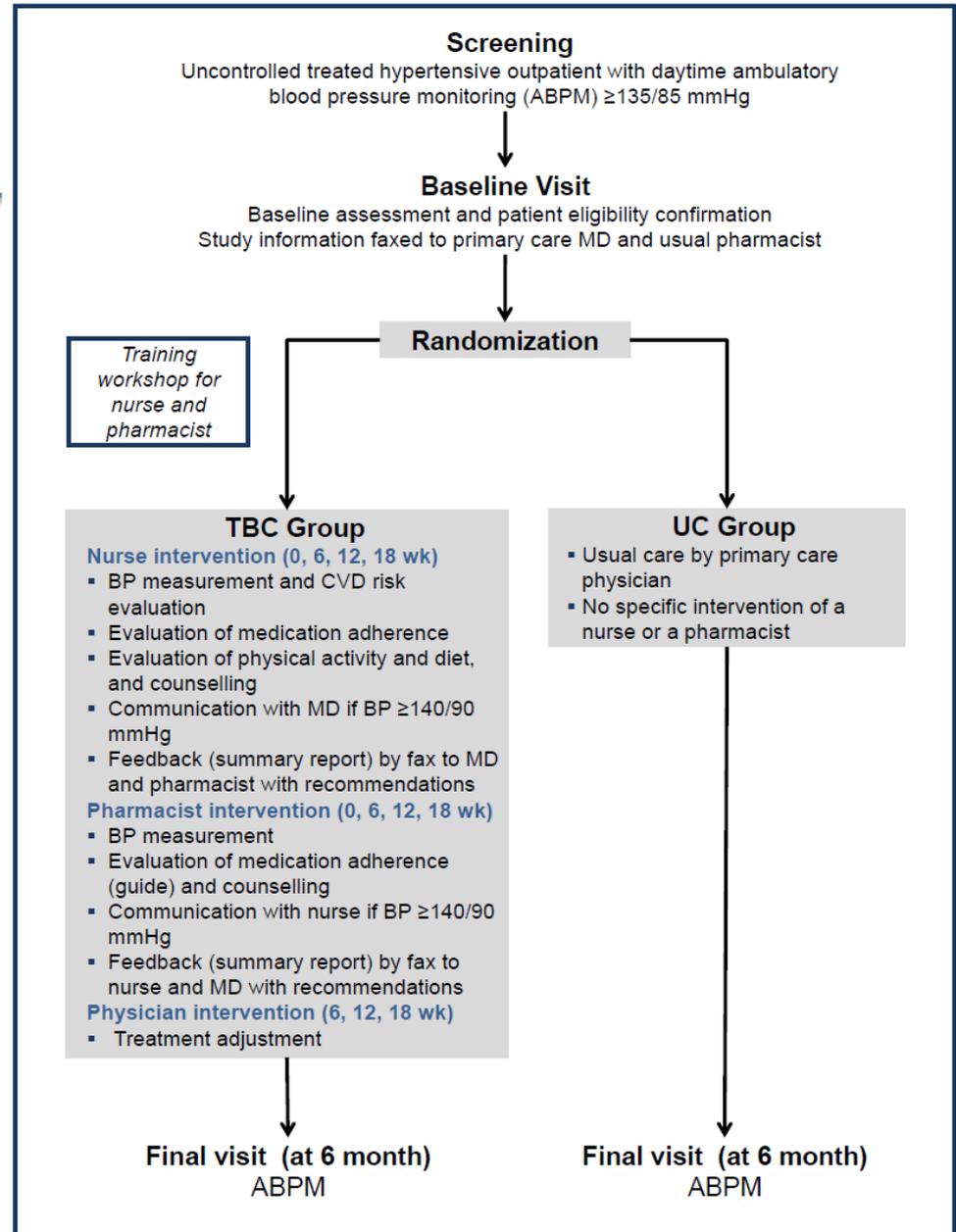
### Results

- BP improvement in TBC group
- Patients and healthcare professionals satisfaction with TBC intervention
- Persistence of effect on BP at 12-month (6 months after the end of the intervention)



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# TBC-Hypertension study

## News from the field study

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### Current status

Participants, n	32 (TBC:16; UC:16)
Mean age, years, (range)	58.9 (39.6-85.3)
Sex, women/men (%)	28 % W / 72% M
Mean number of anti-HTA drugs, range	1.8 (1-3)
Mean Day ABPM, mmHg	142.1 / 89.4

### Patients' experiences

- "Disappointment to be in UC group"
  - "Ready to have visits at different places (ambulatory clinics and pharmacies)"
  - "Some refusals by lack of time"
  - "TBC intervention is helpful"
-

# TBC-Hypertension study

## News from the field study

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### Healthcare professionals' experiences

#### Pharmacists

- satisfied with having «real patient consultation» time and with receiving information from nurse (lifestyle)
- interested in developing such intervention in their clinical practice

#### Nurses

- satisfied with having time for patient education
- interested in having more training to conduct good intervention

#### MD

- consider TBC intervention as «coaching» and satisfied with receiving information on lifestyle (nurse) and medication adherence (pharmacist)

# TBC-Hypertension study

## Challenges

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- Recruitment
- Limited funding
  - Limited resources
  - No remuneration for MD, nurses and pharmacists
- Cost-effectiveness
  - Secondary and exploratory analyses planned

# TBC-Hypertension study

## Conclusion & Perspective



- Results expected in 2018
- Essential to **promote interprofessional culture** among MD, pharmacist & nurse during graduation
  - **Interprofessional education**
    - FBM UNIL /HES-SO la Source for students in medicine and nursing (i.e., course “Hypertension and medication adherence in clinical practice” by Santschi et coll.);
    - “Journées interprofessionnelles FBM UNIL / HES-SO” for students in medicine et filières en soins (i.e., nursing, physiotherapists, midwives, TRM, ergotherapists);
- Promotion of interprofessional culture is essential to implement **collaborative team**, knowledge of each healthcare professionals & **collaborative practices** such as TBC-Hypertension intervention

# TBC-Hypertension study

## Conclusion & Perspective



- The TBC-Hypertension study is funded by «Health Services Research» Funding program of the Gottfried and Julia Bangerter-Rhyner-Stiftung and the Swiss Academy of Medical Sciences (SAMW)



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Academia Svizzera delle Scienze Mediche  
Swiss Academy of Medical Sciences

- The development of the TBC-Hypertension study protocol and the initiation of the study were funded by Seed Money of Bangerter and SAMW and Swiss Society of Hypertension AstraZeneca Grant-in-Aid.



Schweizerische Hypertonie Gesellschaft  
Société Suisse d'Hypertension  
Società Svizzera d'Ipertensione  
Swiss Society of Hypertension



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# Thank you for your attention

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