### Additional file 3. Overview of specifications of implementation strategy elements according to the TIDieR checklist (30)

| WHY | Toolbox IMPROVING | 1) Website | 2) eLearning | 3) Information sheet “SSR updates” | 4) Feedback procedure | 5) Audit & Feedback | 6) Communication manual |
|-----|-------------------|------------|-------------|-----------------------------------|----------------------|-------------------|-------------------------|
| **WHY** | Brainstorm: Previous analysis of barriers and facilitators | Brainstorm: Previous analysis of barriers and facilitators | Brainstorm: Previous analysis of barriers and facilitators | Brainstorm: Previous analysis of barriers and facilitators | Brainstorm: Previous analysis of barriers and facilitators | Brainstorm: Previous analysis of barriers and facilitators | Brainstorm: Previous analysis of barriers and facilitators |
| **Justification** | Persuasive communication | Active learning | Facilitation | Participation | Feedback | Advocacy and lobbying |
| **Kok et al. (43) methods** | N.A. | Advance organizers | Modeling | Elaboration | Modeling |
| **WHAT** | Dissemination | Inform | Inform and learn | Inform | Motivate to provide feedback | Provide feedback to encourage use of SSR | Communicate and support |
| **Materials** | Infographic | Webpages | eLearning modules | Information sheet, part of all SSR templates | Feedback button, part of all SSR templates | Audit and feedback reports | Communication Manual |
| **Procedures** | Infographic was provided to pathologists in multiple ways | Via the toolbox (infographic) or directly via the PALGA website, pathologists had access to webpages providing information on SSR | | | | | |

---

A: Include a new column for ‘Materials’ indicating the medium used for dissemination or interaction.
| WHO PROVIDED | PALGA® | PALGA | PALGA | PALGA | Project team | PALGA |
|--------------|--------|-------|-------|-------|--------------|-------|
| Dutch Pathology Association | Online, individually | Online, individually | Part of SSR templates, individually | Part of SSR templates, individually | E-mail, individually or to multiple pathologists / PALGA liaison | Online, individually |
| HOW | Online, individually | Online, individually | Part of SSR templates, individually | Part of SSR templates, individually | E-mail, individually or to multiple pathologists / PALGA liaison | Online, individually |
| WHERE | PALGA website | Link to website included in the IMPROVING toolbox | Link to eLearning included in the IMPROVING toolbox | Part of SSR templates | Send via e-mail as an attachment | Link to website included in the IMPROVING toolbox |
| | Dutch Pathology Association Newsletter | Direct access via www.palga.nl | Access via www.palga.nl | Part of SSR templates | Send via e-mail as an attachment | Link to website included in the IMPROVING toolbox |
| | Dutch Pathology Association website | Direct access via www.alue.nl | Direct access via www.cuble.nl | Direct access via www.palga.nl | Direct access via www.palga.nl | Direct access via www.palga.nl |
| WHEN and HOW MUCH | Freely available via internet during study | Freely available via internet during study | Freely available via internet during study | Available via SSR templates | Available via SSR templates | Freely available via internet during study |
| Temporality | Use when needed | Use when needed | Use when needed | Use when needed | Use when needed | Use when needed |
| Dose | Depends on demand of user | Depends on demand of user | Depends on demand of user | Depends on demand of user | Depends on demand of user | Depends on demand of user |
| TAILORING | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) |
| MODIFICATIONS | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) |
| HOW WELL | Freely available via internet during study | Freely available via internet during study | Freely available via internet during study | Available via SSR templates | Available via SSR templates | Freely available via internet during study |
| Temporality | Use when needed | Use when needed | Use when needed | Use when needed | Use when needed | Use when needed |
| Dose | Depends on demand of user | Depends on demand of user | Depends on demand of user | Depends on demand of user | Depends on demand of user | Depends on demand of user |
| TAILORING | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) | Elements based on previously conducted barrier and facilitator analysis. Development is reported in Swillens et al. (22) |
| MODIFICATIONS | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) | Implementation strategy (elements) were previously tested in a pilot and modified, before being implemented and evaluated on a national level. Pilot study is reported in Swillens et al. (22) |
| Planned                                                                 | Individual elements could be used digitally on an as-needed basis. We evaluated the actual use of the implementation strategy (elements) on a national level. This is reported in the Method section of this article. |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Actual                                                                  | Actual use was already evaluated in our pilot study, reported in Swillens et al. (22). We also evaluated the actual use of the implementation strategy (elements) on a national level. This is reported in the Result section of this article. |

*Materials are reported in Swillens et al. (22) and a preview of the audit and feedback report in additional file 4*

*Professional association for developing SSR templates*