Require: Warps $W \leftarrow \{w_1, .., w_N\}$ assigned to warp scheduler s.
Require: Last issued warp $w' \in \emptyset \cup W$ assigned to warp scheduler s.

```
W' ← sorted(w) (oldest warps first)
W' ← w' ∪ W'
issued ← 0
for w ∈ W do
    while w.has_instruction() and not w.waiting() and not w.at_barrier() do
        if issued ≥ 2 then
            break                          ▷ can issue up to 2 instructions per cycle
        end if
        instruction ← get_warp_instruction(warp)
        if scoreboard.has_collision(instruction) then
            continue
        end if
        exec_unit ← get_exec_unit(instruction)
        if not already_issued_to(exec_unit) and can_issue(instruction, exec_unit)
then
            issue(instruction, exec_unit)
            issued++
            w' ← {w}
        end if
    end while
    if issued > 0 then
        return                             ▷ instructions must come from same warp
    end if
end for
```