Shared Memory Jacobi Pseudocode

```
const TOLERANCE = ...
main() {
    double A[n,n], B[n,n], maxdiff = 0.0
    bool done := false

    initialize A, B

    co id := 0 to P-1 {
        double diff
        int startrow := id * n / P, endrow := (id+1) * n / P - 1

        while not done {
            for i := startrow to endrow {
                for j:= 1 to n-2 {
                    A[i][j] := (B[i][j-1] + B[i][j+1] + B[i-1][j] + B[i+1][j])/4
                    diff := abs(A[i][j] - B[i][j])

                    // how should we implement <...>?
                    <
                        if (maxdiff < diff)
                            maxdiff = diff
                    >
                }
            }

            barrier  // is this needed?
            if (id == 0) {
                if maxdiff < TOLERANCE
                    done := true
                else {
                    swap(A,B)
                    maxdiff := 0
                }
            }
            barrier  // needed?
        }
    }

    print out answer
}
```